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ABSTRACT

This final report is part of a national assessment on the Chapter 1 Compensatory education program. The assessment, which began in 1984, includes national data through 1987. The topics covered in the report are the following: (1) program framework; (2) findings and implications of the national assessment; (3) distribution, character, and selection of the schools and students; (4) overview of services; (5) effective educational practices in Chapter 1 programs; (6) relationship between Chapter 1 and the regular school program; (7) Chapter 1 in the school setting; (8) services to private school students; (9) effects of new Chapter 1 standards for local procedures; (10) effects of reduced application and reporting requirements; (11) organization and staffing of Chapter 1 programs; (12) state and federal oversite and assistance activities; (13) state and local administrative burden; (14) legislative options; and (15) options for policymakers. Four appendices include: (1) Congressional Mandate and Index of Issues; (2) National Assessment of Chapter 1 surveys and studies; (3) Administrative History and Status; and (4) Description of School and District survey samples, standard error calculation and significance Tests. (VM)

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THE CURRENT OPERATION OF THE CHAPTER 1 PROGRAM

NATIONAL ASSESSMENT OF CHAPTER 1 • 1987

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The Current Operation of the Chapter 1 Program

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Final Report from the National Assessment of Chapter 1
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1987

PREFACE

The National Assessment of Chapter 1, of which this final report is a part, was mandated by Congress in December, 1983. The mandate, included in the Technical Amendments to the Education Consolidation and Improvement Act (ECIA) of 1981, required the National Institute of Education (NIE)[1] to conduct independent studies and analyses, and to report the findings to Congress. Findings were to address the following topics:

- services delivered;
- recipients of services;
- background and training of teachers and staff;
- allocation of funds (to school sites);
- coordination with other programs;
- effectiveness of programs on student's basic and higher order academic skills, school attendance, and future education; and
- a national profile of the way in which local educational agencies implement activities described under Section 556(b) of Chapter 1.

The mandate also required consultation with relevant members of the House and Senate education committees. The mandate is reproduced in Appendix A.

NIE developed a three-part response to the required National Assessment. First, agency staff consulted with Congress about the study's purposes and objectives, and discussed the study with a wide range of people who were expected to take an interest in the forthcoming reauthorization of Chapter 1. Those discussions were with staff of the U.S. Department of Education, the Office of Management and Budget, the Congressional Research Service, the Congressional Budget Office, and representatives from a variety of associations and other groups interested in Federal education legislation. Second, based on these conversations, a Study Plan was developed and presented to the House and Senate education committees. Third, the agency formed a Study Team to develop and oversee the many studies and analyses which contributed to the National Assessment.

This is the second occasion on which Congress has required a study of this important education program. The Education Amendments of 1974 mandated the first study. Findings from the resulting NIE "Compensatory Education Study" contributed to the 1978 reauthorization of Chapter 1's predecessor, Title I of the Elementary and Secondary Education Act (ESEA).

Since 1978, Federal compensatory education legislation has undergone two further changes. First, in 1981 Title I of ESEA was superseded by Chapter 1 of ECIA, an act designed to consolidate and streamline a number of Federal education programs and to reduce the burden experienced locally in administering these programs. Chapter 1 of ECIA retains the same basic purposes as Title I of ESEA but changes a number of administrative features of the program. Second, in 1983, Congress passed technical amendments to ECIA. These amendments were designed to clarify ambiguities in Chapter 1 and to restore some Title I provisions that Chapter 1 had dropped or changed. These legislative changes were largely responsible for Congress' decision to require a second major assessment of the program.

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[1] On October 1, 1985, NIE was reorganized into the Office of Educational Research and Improvement (OERI) within the U.S. Department of Education (ED).

The design of the National Assessment had two noteworthy features. First, it was designed to give Congress information about current practices under Chapter 1. The National Assessment's final report, contained in this volume, describes:

- How school districts select schools and students to participate in the program, and the effects of those decisions;
- The quantity and characteristics of services being provided;
- How programs are administered and changes in administration since Title I.

The report presents data from surveys and intensive interviews in school districts and States conducted specifically for the National Assessment.

Second, as background for this final report, the National Assessment drew on earlier knowledge about Title I and Chapter 1 programs generated from a variety of sources. The National Assessment provided Congress with two interim reports, and both relied heavily on these earlier data. The first interim report summarized information about the population of students whom Chapter 1 is intended to serve--educationally deprived students residing in areas with high concentrations of children from low-income families. The second interim report reviewed evidence regarding the effectiveness of Title I and Chapter 1 programs. These two interim reports were intended to provide policymakers with a broad perspective from which to view the actual Chapter 1 program practices described in this final report.

The Chapter 1 Study Team began to implement the National Assessment in the fall of 1984, after the Study Plan had been reviewed by Congressional staff members for both the Senate and House education committees. The Study Team awarded contracts for portions of the work, and these are listed in Appendix B. Appendix C reports the administrative history and status of the National Assessment. Responsibilities for components of the National Assessment were distributed among members of the Study Team. Mary Kennedy, Richard Jung and Martin Orland had primary responsibility for the first interim report. Mary Kennedy and Randy Demaline took the lead in the second interim report. Beatrice Birman, who took over the duties of Director in May 1986, oversaw completion of the second interim report and directed work on the third and final report.

Responsibilities for the final report were distributed as follows: Martin Orland had overall responsibility for technical accuracy of analyses presented in the report, as well as for describing administrative practices. Richard Jung was responsible for describing the characteristics of program recipients and patterns of their participation. Ronald Anson was responsible for describing district-level decisions about the program and for overseeing all administrative tasks associated with this report. Gilbert Garcia coordinated the collection of information about services and oversaw the preparation of appendices.

A number of other individuals had responsibilities for preparing sections of this report. Mary Moore and Janie Funkhouser described educational services provided to Chapter 1 students. Donna Morrison analyzed survey data about program services and prepared the technical appendix. Brenda Turnbull and Elizabeth Reisner contributed substantially to the writing of many sections in the report.

Other contributors to the final product were: Richard N. Apling, Joanne Bogart, and John Morris of Policy Studies Associates; David E. Myers and William Strang of DRC; Christine T. Wood of RMC Research Corp.; and Judy McNeil Thorne of Westat. Inc.

Adrienne von Glatz edited this report. Paige Russ, Saunders L. Freeland, and Linda K. Bailey were responsible for its typing.

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CHAPTER 1

INTRODUCTION AND SUMMARY

This report, written at the request of Congress for use in the reauthorization of Chapter 1 of the Education Consolidation and Improvement Act (ECIA), presents findings from studies that describe the current Federal, State, and local operations of the Chapter 1 program. It is the third and final report mandated in the 1983 Technical Amendments to ECIA, which required the Secretary of Education to conduct a national assessment through independent studies and analyses. (The mandate for the National Assessment of Chapter 1 is presented in Appendix A.)

Chapter 1, formerly Title I of the Elementary and Secondary Education Act (ESEA), serves almost five million school-aged children, or one out of every nine students enrolled in U.S. elementary and secondary schools.[1] Selected on the basis of procedures that consider their schools' poverty and their own achievement, Chapter 1 participants typically receive remedial instruction in reading or mathematics or both, in addition to the regular instructional services their schools provide. At $3.9 billion in 1987, the program constitutes the Federal government's largest investment in elementary and secondary education and accounts for 20 percent of the U.S. Department of Education's (ED's) total budget.[2] The program reaches virtually every school district in the nation.

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[1] The program served 5.4 million students in 1979-80, the school year following the last reauthorization of Title I. Participation declined during the last two years of Title I and the first year of Chapter 1, but has increased slightly over the past two years. In 1984-85, Chapter 1 served 4.9 million students (Gutmann & Henderson, 1987).

[2] From fiscal year 1979 until fiscal year 1982, the program's budget declined by 8 percent in actual dollars, from $2.8 to $2.6 billion, but by 29 percent when measured in dollars adjusted for inflation. From fiscal year 1983 until fiscal year 1986, the program's budget grew by 12 percent in actual dollars, from $2.7 to $3.1 billion, but declined by 2 percent measured in dollars adjusted for inflation (Funkhouser, Michie, & Moore, 1987). In fiscal year 1987, the program's budget grew to $3.5 billion, an increase of 13 percent in actual dollars, or 9 percent measured in dollars adjusted for inflation.

This report describes Chapter 1's current operation in terms of the students served by the program, the services participants receive, and program administration. Nationwide mail and telephone surveys commissioned by the National Assessment collected information from State and local Chapter 1 administrators, as well as principals and teachers; these surveys describe the implementation of Chapter 1 at State, district, and school levels. In addition, on-site studies and research reviews examined areas of particular interest to Congress. With the exception of one survey, data collection took place in the 1985-86 school year. Appendix B describes the surveys, on-site studies, and reviews in more detail.

The following surveys and studies, conducted for the National Assessment, provide the basic data for this report:

> *The School Survey* -- A national survey of principals and teachers about regular and Chapter 1 schools, students, and services.
>
> *The District Survey* -- A national survey of district Chapter 1 coordinators about district implementation of Chapter 1 programs.
>
> *The State Survey* -- A national survey of the 50 State Chapter 1 coordinators about State-level management of Chapter 1, conducted as part of the District Survey.
>
> *The Chapter 1 Oversight Survey* -- A national survey of district Chapter 1 coordinators about the monitoring and auditing of Chapter 1 programs (OERI, 1987).
>
> *The Private School Student Participation Survey* -- A national survey of district Chapter 1 coordinators comparing Chapter 1 services to students who attended private schools before and after the Aguilar v. Felton decision. The survey was conducted in the fall of 1986 (OERI, 1987).
>
> *The Targeting Study* -- A study of how districts select Chapter 1 schools and students and the effects of these procedures (Wood, Gabriel, Marder, Gamel, & Davis, 1986).
>
> *The Resource Allocation Study* -- A study of how districts allocate resources among schools and the resulting resource distributions (Goertz, 1987).
>
> *The Program Design Study* -- A study describing how districts and schools make program design decisions for Chapter 1 (Knapp, Turnbull, Blakely, Jay, Marks, & Shields, 1986).

The Administration Study -- A study of State and district administration of Chapter 1, including major changes that have occurred since Title I (Farrar & Millsap, 1986).

The Whole School Day Study -- A study of Chapter 1 services in relation to the whole school day of Chapter 1 participants (Rowan, Guthrie, Lee, & Guthrie, 1986).

THE PROGRAM FRAMEWORK

Enacted in 1981 and amended in 1983, Chapter 1 retained the basic purpose of Title I, which is "to provide financial assistance to State and local educational agencies to meet the special needs of educationally deprived children" (Section 552).[3] Like Title I, Chapter 1 has a legal framework designed primarily to ensure that program services go to educationally deprived students attending schools with high concentrations of low-income students and that these services do not replace services that districts would otherwise fund from State or local sources.

However, with the enactment of ECIA, Congress reversed a decade-long trend toward greater prescriptiveness and specificity in the Title I legal framework. In the 1970s, faced with evidence of the misuse of program funds (Martin & McClure, 1970; Kirst & Jung, 1980), Congress and the U.S. Office of Education took steps to increase State and local accountability under the program. These steps resulted in detailed program requirements, culminating in the 1978 amendments to Title I. In contrast to these efforts to increase administrative responsibilities (and perhaps in reaction to them), ECIA sought to eliminate "burdensome, unnecessary, and unproductive paperwork and free the schools of unnecessary Federal supervision, direction and control" (Preamble P.L. 97-35). Operationally, then, the 1981 Act removed several reporting requirements, eliminated certain procedures (most notably, the requirements for district- and school-level parent advisory councils), and loosened certain compliance standards. ECIA also reduced State-level responsibilities and the Federal resources available for States to administer the program. The 1983 Technical Amendments clarified some of the ambiguities of ECIA and reinstated certain provisions that had existed under Title I.

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[3] In addition to the funds it provides directly to school districts, Chapter 1 authorizes smaller amounts of funds for State educational agencies to support supplementary services to three other special populations: certain handicapped youngsters, neglected or delinquent youth, and the children of migrant workers. The National Assessment did not study these programs but focused on the Chapter 1 grants to school districts.

FINDINGS OF THE NATIONAL ASSESSMENT

Although Chapter 1 provides a single framework for supporting supplementary educational services, research conducted as part of the National Assessment found diversity in program implementation across school districts and States. For example, districts differ markedly in the characteristics of the students they serve, including family income and achievement level. Since Chapter 1 permits local discretion in the design of Chapter 1 programs, services also differ from one project to the next. Services may be provided in some grades and not others, they may last 20 minutes or a few hours per day,[4] they may take place in the student's regular classroom or another setting, teachers or aides may deliver them, and they may use the same materials as the regular instructional program or different materials. States also differ in their administrative operations--for example, in the amount of staff time they devote to assistance with instructional quality--and in their requirements for districts--such as whether districts must submit detailed narratives about how they meet the law's fiscal provisions.

---

[4] If Chapter 1 instructional services are provided for a period that exceeds 25 percent of the time that a participating child would spend receiving such services from non-Chapter 1 teachers in the absence of Chapter 1 funds, then the school district must contribute resources to ensure that Chapter 1 funds do not substitute for State and local resources.

The following discussion describes key findings of the National Assessment regarding Chapter 1 recipients, services, and administration.

Recipients of Chapter 1 Services

Policymakers often ask whether Chapter 1 services are provided to the program's intended beneficiaries. To be eligible for Chapter 1 services, a student must first live in an eligible school attendance area, which is usually an area with a higher proportion of poor students than the district average. If the student's school qualifies for Chapter 1 services on the basis of its overall poverty rate, the student may be selected to participate only if he or she is enrolled in one of the grades in which Chapter 1 services are offered and performs below a specified level. This procedure for selecting Chapter 1 beneficiaries places heavy emphasis on local policies and demographic characteristics.

Our first report to Congress summarized research about the population of poor, low achieving students who are the program's intended beneficiaries (Kennedy, Jung, & Orland, 1986). The report examined the relationship between poverty and achievement, the characteristics and distribution of poor children, and the characteristics of students who participate in Chapter 1 programs. In Chapter 2 of this report, we examine information about the characteristics of districts, schools, and students receiving Chapter 1 services and analyze the procedures used to distribute funds to school districts and the methods districts use to select schools and students. Our principal findings are:[5]

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[5] Throughout this report, we cite nationwide estimates drawn from survey findings as numbers (e.g., "90 percent") or as approximate numbers (e.g., "about three-fourths"). When findings come from on-site studies of nonrandom samples of States or districts, we have been cautious in drawing generalizations, and have cited numbers only in the context of their sampling limitations.

- **Almost all of the nation's school districts (over 90 percent) receive Chapter 1 funds. Three-fourths of all elementary schools and over one-third of middle and high schools provide Chapter 1 services.**

- **About three-fourths of all Chapter 1 students are enrolled in districts and schools with poverty rates above the national midpoint.**

- **Districts generally select schools characterized by high percentages of poor students, judged on local, but not always national, standards. Districts generally select students who are low achievers by both local and national standards.**

- **Among the nation's elementary schools with very high poverty rates, close to 90 percent receive Chapter 1 services. Unserved elementary schools with very high poverty rates by national standards are almost all located in districts with poverty rates above the national midpoint.**

- **Many students with very low achievement levels by national standards do not receive Chapter 1 services.**

- **A small proportion of Chapter 1 students achieve at levels close to or above the national average.**

Recent investigations have documented that districts generally follow Chapter 1 school and student selection requirements (Targeting Study; GAO, 1987) and that districts use the law's flexibility to tailor their Chapter 1 selection decisions to local circumstances and preferences. In Chapter 2, we describe how districts make these decisions, and their effects on the characteristics of schools and students participating in the Chapter 1 program.

Services Provided to Chapter 1 Students

A second recurring question is whether the types of services provided to Chapter 1 students are effective in improving achievement. Chapter 1 gives States and localities discretion in their design of Chapter 1 services, but it places general boundaries around acceptable designs. The law requires, for example, that programs be of "sufficient size, scope and quality to give reasonable promise of substantial progress toward meeting" students' special educational needs (Section 556(b)(3)). Other requirements, such as a prohibition on supplanting State and local services, affect program design by encouraging districts to design services that facilitate the tracking of Chapter 1 funds.

Our second report to Congress (Kennedy, Birman, & Demaline, 1986) documented the problems of previous large-scale research efforts in identifying the features of Chapter 1 programs that enhance student achievement. Instead of launching a new data collection activity to assess the effectiveness of Chapter 1 practices--inevitably a large, expensive undertaking--the National Assessment took a different approach. To improve our understanding of the relationship between educational practices and student outcomes, the Assessment drew on research that has examined effective practices in education in general, rather than Chapter 1 only. Thus, the second report identifies educational practices that research generally recognizes as effective and considers their applicability to the Chapter 1 context. Chapter 3 of this report documents the prevalence of these practices in Chapter 1 programs.

The report also presents information about the Chapter 1 services currently provided to eligible students attending private schools. Until the Supreme Court's 1985 decision in Aguilar vs. Felton, most districts had responded to the requirement for equitable services to private school students by providing Chapter 1 services on the premises of the private schools that eligible students attended. In its decision, the Supreme Court said that students attending sectarian private schools could no longer receive Chapter 1 services at their own schools. Chapter 3 of this report documents declines in the number of private school students who receive Chapter 1 services, changes in the location of these services, and their similarity to services provided to Chapter 1 students attending public schools.

Our principal findings regarding Chapter 1 services are:

- Chapter 1 continues to be primarily an elementary school program that offers basic skills instruction in reading and mathematics. Services in elementary schools typically are provided outside the regular classroom for about 30 to 35 minutes each day, although the number of minutes varies across districts and schools.

- Certain features of effective education are found in most Chapter 1 programs.

    - About three-fourths of all Chapter 1 teachers provide instruction in groups of eight students or less, a group size that is small enough potentially to improve academic achievement.

    - Almost all Chapter 1 elementary schools (over 90 percent) rely on teachers to provide instruction either alone or with the assistance of an aide. Chapter 1 services are provided by teachers whose educational levels and years of experience are about the same as those of regular teachers.

- Other features of effective instruction--for example, active teacher direction and coordination with the regular program--are found in some Chapter 1 schools but not others.

- Still other program approaches are rarely found in Chapter 1 settings.

    - Few Chapter 1 programs provide services that would substantially increase the total amount of time devoted to instruction (for example, before or after school or during the summer).

    - Chapter 1 projects provide students with few opportunities to engage in higher order academic skills, which some researchers believe should be a component of Chapter 1 instruction.

- Two characteristics of effective schools, a safe and orderly climate and parent involvement, occur less often in Chapter 1 schools with high poverty rates than in Chapter 1 schools with low poverty rates.

- The number of private school students served with Chapter 1 funds has declined since the Supreme Court's decision in *Aguilar vs. Felton*. The locations in which these students receive Chapter 1 instruction have shifted markedly away from private schools to public schools, vans, or other sites.

Administration of Chapter 1 Programs

Chapter 1 changed many of Title I's administrative provisions, in some cases by substituting general requirements for specific standards. Both advocates and opponents of the new law anticipated visible changes in practice. Critics feared that the new law's ambiguity, combined with a lack of commitment to disadvantaged students in some places, would result in dramatic changes in State and local program operations. Proponents of the law argued, however, that the changes would free States and districts to pay more attention to the instructional quality of program services. In fact, the legislation includes language anticipating positive effects from a reduction in administrative burden. It states that Federal assistance will "be more effective if education officials, principals, teachers and supporting personnel are freed from overly prescriptive regulations and administrative burdens which are not necessary for fiscal accountability and make no contribution to the instructional program" (Section 552).

Chapter 4 presents information about the extent to which administrative practices have changed since enactment of Chapter 1 and the effects of these changes. Our principal findings in this area are the following:

- **Most States and school districts carry out similar activities to demonstrate and document compliance with Chapter 1 as they did under Title I, even where Federal requirements have changed. State and local practices have changed most in parent involvement (the number of advisory councils has decreased) and comparability (fewer calculations are performed and fewer districts shift resources among schools).**

- **Federal and State monitoring activities have declined under Chapter 1. However, State and local administrators continue to devote substantial effort to ensuring compliance with Chapter 1's legal framework.**

- **Program improvement activities under Chapter 1 have increased at the Federal level. Most States devote relatively few administrative resources to program improvement, and school districts vary widely in their attention to improvement activities.**

- **At the Federal and State levels, the Chapter 1 program is administered by fewer staff than was Title I. At the local level, the number of staff for some special functions has declined**

considerably. The change from Title I to Chapter 1 had little effect on the perceived responsibilities of most State and school district administrators.

IMPLICATIONS FOR CONGRESS

Chapter 5 identifies some of the implications for Congressional deliberations of information contained in this report. It addresses several areas that seem to be of special importance and interest to Congress. In particular, options are spelled out if Congress wants to: 1) serve more schools with high poverty rates; 2) serve more low achievers; 3) improve Chapter 1 services; 4) increase administrators' attention to program improvement; or 5) encourage greater parent involvement.

STATISTICAL NOTE

This report draws on a number of surveys for estimates, each of which has a standard error. The standard errors indicate the precision of each estimate and they were also used to test hypotheses related to differences between specified groups (e.g., schools with high vs. low poverty rates) that are discussed in the text. Appendix D describes the methods used for the computation of standard errors as well as the types of tests conducted to assess whether differences between specified estimates are statistically significant. The reader can refer to Appendix D for the standard errors of estimates reported in tables, figures, and the text. All the differences in means, medians, and proportions described in the text have been found to be statistically significant at the .05 level, unless otherwise noted.

CHAPTER 2

THE DISTRIBUTION AND SELECTION OF CHAPTER 1 SCHOOLS AND STUDENTS

The Chapter 1 program is based on two related premises: (1) children living in poor households often need extra help to compensate for the effects of an impoverished environment on their learning; and (2) the school districts in which they reside often need additional resources to pay for the extra expenses incurred in educating disadvantaged children. Federal legislation expresses these two premises in the Chapter 1 "Declaration of Policy," which states that children from low-income families have "special educational needs" and that "concentrations of such children in local educational agencies adversely affect their ability to provide educational programs which will meet the needs of such children" (Section 552).

Chapter 1's funding formula and its rules for selecting schools and students to receive program services generally reflect these premises. The program's basic grant funds are allocated to counties and then to school districts based on the number of children from low-income families residing within their boundaries. Any district with 10 or more low-income students is eligible to receive a Chapter 1 grant. The grant amount is determined primarily on the basis of the district's population of low-income children and a per-pupil payment keyed to the State's average per-pupil expenditure.

Participating districts select Chapter 1 schools based on their incidence of poverty. In general, Chapter 1 programs must be "conducted in attendance areas. . . having the highest concentrations of low-income children" within each participating district (Section 556(b)(1)(A)); the law's exceptions to this rule are intended to allow districts to tailor their school selection to local circumstances and preferences. Within Chapter 1 schools, students must be selected for Chapter 1 participation based on their educational need. As with school selection, districts are permitted certain types of flexibility in selecting program participants. Chapter 1 also requires that educationally deprived children who attend private schools and who live in the attendance area of a Chapter 1 school be allowed the same opportunity to receive Chapter 1 services as their public school counterparts.[6]

Available research, including studies reviewed in the first interim report of the National Assessment of Chapter 1, confirms the Chapter 1 premise that childhood poverty is related to poor performance in school. Research described in the first interim report indicates a relatively weak relationship between family poverty and the achievement of individual students. The research also demonstrates that students attending schools with high poverty rates are more likely to perform poorly on standardized tests than are students attending schools with lower poverty rates, independent of the poverty of their own household.[7] The report concluded that the achievement scores of all children, not just poor children, decline as the proportion of poor children in a school increases. Thus, schools enrolling a high percentage of poor children are likely to face greater educational challenges than would be expected simply from knowing the percentage of poor children in those schools.

These findings are generally consistent with Chapter 1's school and student selection provisions. Under Chapter 1, districts must use poverty measures in selecting schools to participate in the program. These measures are fairly accurate predictors of the average achievement of students in a particular school, although they do not specifically take into account the increased educational needs associated with high poverty concentrations. Chapter 1's student selection provisions require districts to use achievement measures, rather than family poverty, to select individual students for program participation. Selecting students on the basis of their achievement is consistent with the fact that the association between family poverty and individual student achievement is not particularly strong.

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[6] The National Assessment's data about services provided to students attending private schools are presented in Chapter 3.

[7] The first interim report concluded that, in addition to the concentration of poor children attending a particular school, another measure of the intensity of a child's poverty experience--long-term family poverty--is also related to a student's performance in school, independent of family poverty measured at one point in time. The data bases used to measure the two forms of poverty intensity--concentration of poverty and long-term family poverty--are different. However, similar demographic patterns in the data bases suggest that the same children may be experiencing both forms of poverty (Kennedy, Jung, & Orland, 1986).

Research conducted for the Chapter 1 National Assessment also supports the premise that school districts with high concentrations of poor children face special financial challenges in meeting the educational needs of their students. Such districts are responsible for educating large numbers of low achieving children, often without the additional local resources to do so. In 28 States for which data were available, the poorest quarter of school districts raised about 7 percent less in local revenues per pupil than districts in their State with moderate poverty rates and 25 percent less than districts in their State with the lowest rates of poverty. Even when State aid is taken into account, the poorest school districts raised about 7 percent less in combined State and local revenues than districts with the lowest rates of poverty, where fewer low achieving pupils reside. These patterns vary markedly by region (Orland, 1987).

This chapter discusses the distribution and selection of Chapter 1 students and schools. The first section describes the distribution of students across districts and the characteristics of Chapter 1 schools and students. The second section discusses factors affecting the selection of schools and students, including the distribution of program funds to districts and districts' use of the program's selection rules and options to distribute program resources to schools and students. The chapter concludes with a summary of explanations for the achievement characteristics of Chapter 1 students.

THE CHARACTERISTICS AND DISTRIBUTION OF CHAPTER 1 SCHOOLS AND STUDENTS

Enrollment Characteristics of Chapter 1 Districts

During the 1985-86 school year, over 90 percent of the nation's school districts participated in the Chapter 1 program. This level of district participation has characterized the program since its beginning in the mid-1960s (Advanced Technology, Inc., 1983). As a result of the low threshold for program eligibility (10 students), the poverty rates of Chapter 1 districts vary substantially, reflecting differences in poverty rates among all school districts in the nation. In fact, districts with low rates of poverty are about as likely to receive Chapter 1 grants as districts with high poverty rates (District Survey).[8]

Because the size of a Chapter 1 grant is directly related to the number of poor children in a district, higher-poverty districts can serve more students in the program. Thus, not surprisingly, Chapter 1 students are much more likely than students nationwide to reside in the quarter of districts with the highest poverty rates. Figure 2.1 uses data from the District Survey to show that 45 percent of all Chapter 1 students, compared to 25 percent of the public school population, are in the quarter of all districts with the highest rates of poverty. Combining the percentages of

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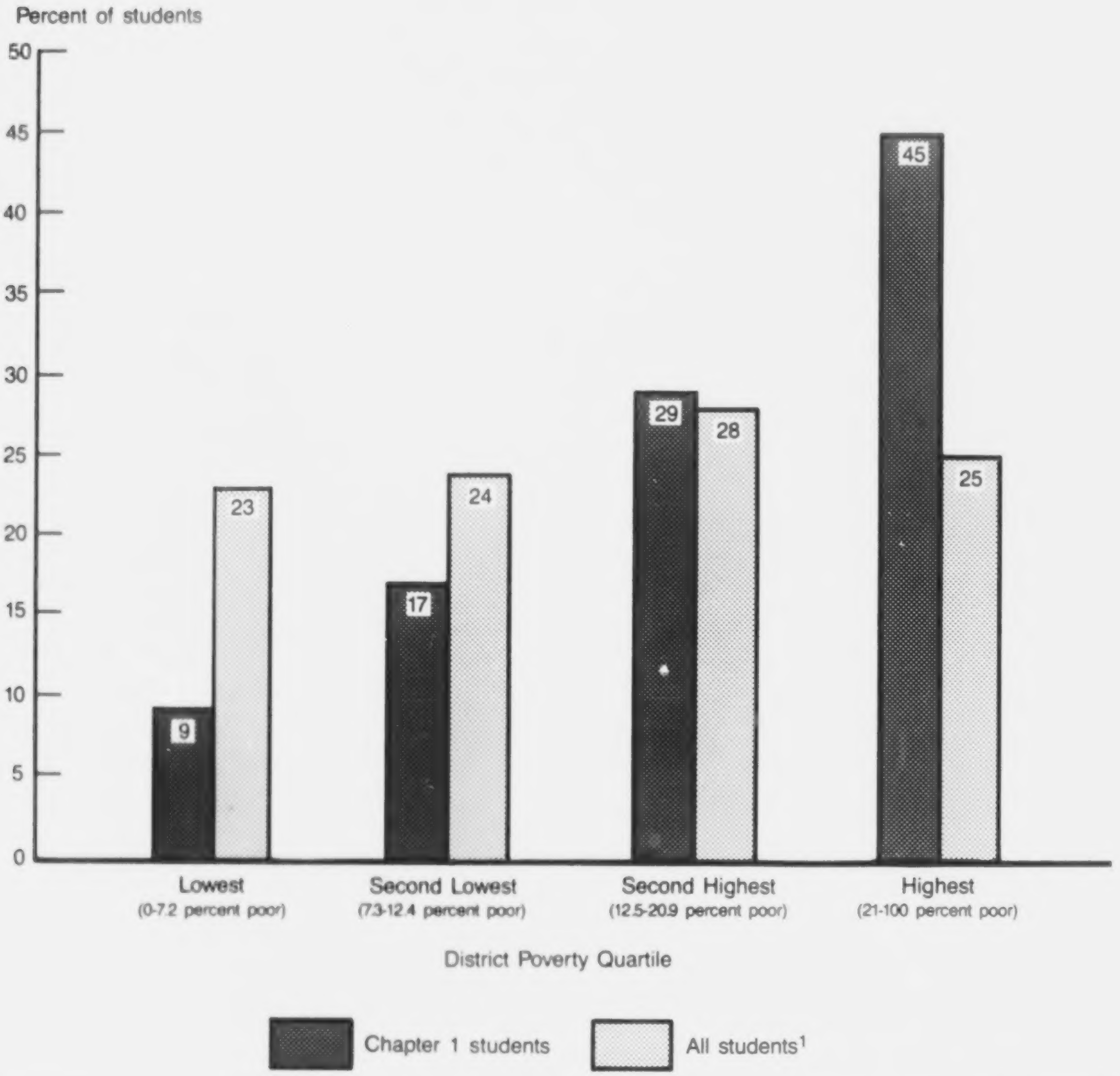
[8] Throughout this report, we rely on four data sources for estimating the incidence of childhood poverty nationally. At the district level, we rely on a 1980 poverty measure from the STF3F Bureau of Census mapping of school district boundaries to Census tracts, which used the Orshansky index of poverty. At the school level, we rely on data collected as part of the Chapter 1 National Assessment's School Survey during the 1985-86 school year; these data report public school principals' estimates of the percent of students who are eligible for free or reduced-price lunches in their schools. At the individual level, we rely on data collected as part of the Sustaining Effects Study in 1976 and on more recent data from the Bureau of Census as reported in Children in Poverty (Congressional Research Service and Congressional Budget Office, 1985). Reliance on these data sources permits us to provide the most recent national poverty estimates at each level. However, the different methods used to obtain these poverty estimates limit the comparisons that can be made across these data sources and therefore across district, school, and individual levels.

Figure 2.1

Distribution of Chapter 1 Public School Students in Relation to All Students[1], by District Poverty Quartile, 1984-85



Source Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86; poverty measure from the 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

[1] "All students" refers to all students residing in Chapter 1 districts. The 10 percent of districts that do not receive Chapter 1 funds are predominantly very small districts.

Figure reads: Of all Chapter 1 public school students in the nation, 9 percent are in districts in the lowest poverty quartile. Of all public school students, 23 percent are in districts in the lowest poverty quartile.

Chapter 1 students in the two quartiles with the highest poverty rates, Figure 2.1 indicates that 74 percent of all Chapter 1 students are in districts with poverty rates above the national midpoint of 12.5 percent.[9] Nine percent of all Chapter 1 participants, or more than 480,000, are in the quarter of districts with the lowest rates of poverty, compared to 23 percent of all students.

Chapter 1 students are also more likely to reside in urban districts and in very large school districts, as compared to other students (Figure 2.2). Thirty-seven percent of Chapter 1 participants attending public schools reside in urban districts, compared to 26 percent of all public school students in Chapter 1 districts. Districts with over 25,000 students enroll 34 percent of all Chapter 1 students compared to 27 percent of all public school students in Chapter 1 districts.

Characteristics and Distribution of Chapter 1 Schools

While Chapter 1 reaches most of the nation's poorest schools, it also reaches many schools with relatively low proportions of poor children by national standards. Overall, about 60 percent of the nation's public schools provide Chapter 1 services, according to data from the National Assessment's School Survey. Seventy-five percent of all public elementary schools offer Chapter 1 services, and 36 percent of all public middle and secondary schools operate Chapter 1 projects.

Given that such a large percentage of elementary schools offer Chapter 1 services, it is not surprising that elementary schools with low poverty rates are almost as likely to offer Chapter 1 services as are elementary schools with high poverty rates,

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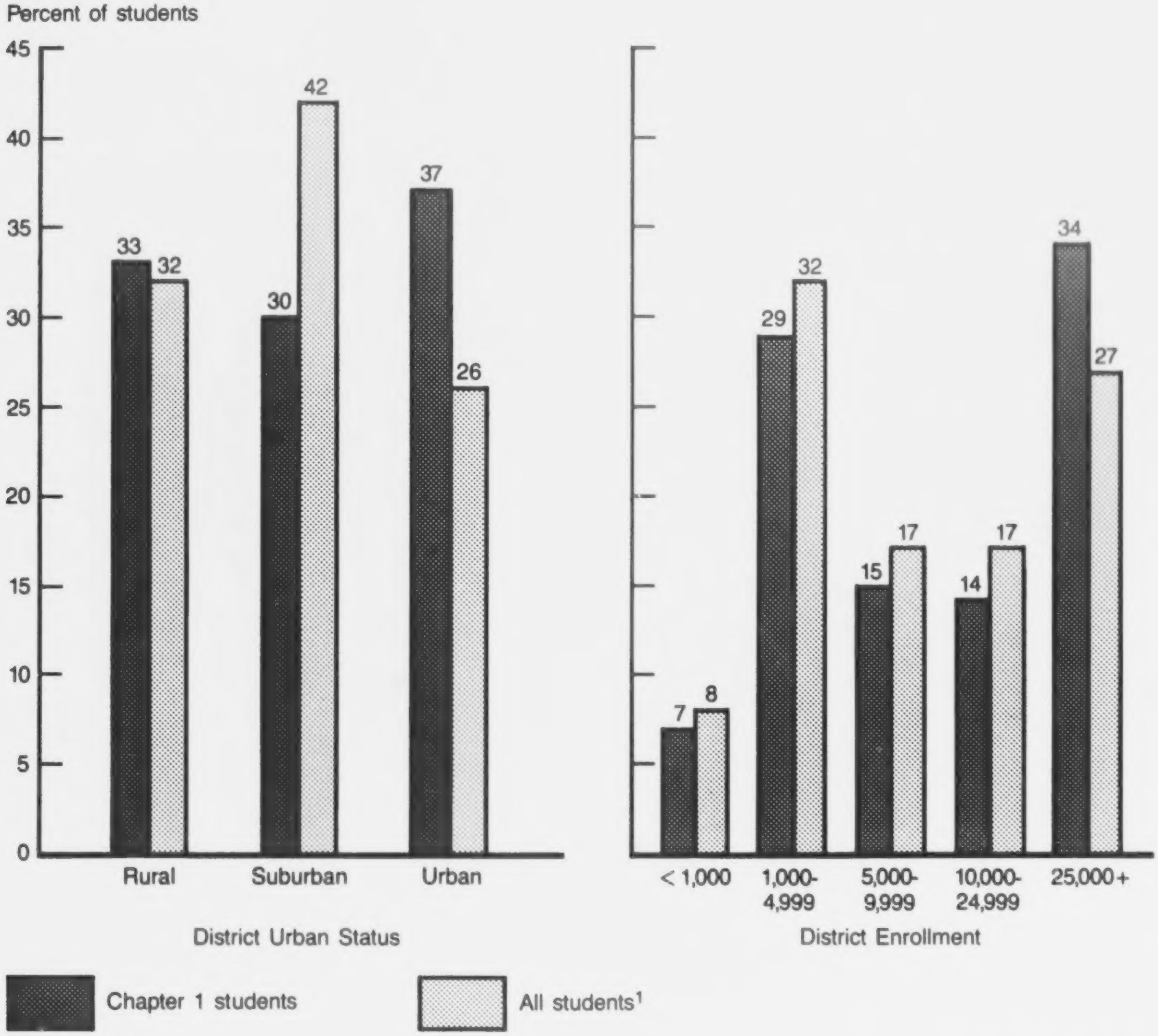
[9] Many analyses in this chapter and elsewhere in this report organize district or school data by quartiles. In these analyses, districts or schools have been rank ordered and clustered into four groups, or quartiles, containing approximately equal numbers of districts or schools, as specified in the analysis.

The midpoint, or median, is the number that divides the cases (e.g., districts or schools) in half. There are the same number of cases with smaller values than the median as there are with larger values. Since the median poverty rate of school districts is 12.5 percent, half the nation's districts have higher poverty rates and half have lower poverty rates.

Figure 2.2

Distribution of Chapter 1 Public School Students in Relation to All Students[1] by District Urban Status and by District Enrollment, 1984-85



Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

[1] "All students" refers to all students residing in Chapter 1 districts. The 10 percent of districts that do not receive Chapter 1 funds are predominantly very small districts.

Figure reads: Of all Chapter 1 public school students in the nation, 33 percent reside in rural districts. Of all public school students, 32 percent reside in rural districts. Of all Chapter 1 public school students in the nation, 7 percent reside in districts with enrollments of less than 1,000 students. Of all public school students, 8 percent reside in districts with enrollments of less than 1,000 students.

as shown in Table 2.1. Even so, Chapter 1 elementary students are disproportionately enrolled in schools with the highest rates of poverty. Forty-three percent of all Chapter 1 elementary students are in the quarter of schools with the highest poverty rates, compared to 30 percent of all elementary students who attend these schools.

Overall, Chapter 1 elementary schools enroll higher percentages of poor children than do non-Chapter 1 schools, according to the School Survey. The median rate of poverty is 35 percent in Chapter 1 public elementary schools and 17 percent in non-Chapter 1 public elementary schools.

Most elementary schools with very high percentages of poor students receive Chapter 1 services, as shown in Figure 2.3. Eighty-seven percent of all elementary schools in the highest quarter of school poverty offer Chapter 1 services, according to the School Survey. Of elementary schools with average achievement scores in the lowest quartile nationally, 83 percent offer Chapter 1 services, as do 78 percent of the elementary schools in which students from racial/ethnic minority groups constitute the majority. Comparable data are not available for secondary schools.

Even though most schools with high percentages of poor, minority, and low achieving students receive Chapter 1 services, some schools with very high poverty rates (50 percent or higher) do not receive Chapter 1 services. As indicated in Figure 2.3, about 13 percent of all elementary schools in the highest quarter of school poverty do not participate in Chapter 1. Among these schools, more than half provide State compensatory education services. However, the presence and level of these services vary considerably across States, and the service level is often lower than that provided by Chapter 1. In 1984-85, 16 States provided State compensatory services, but resource levels equalled 25 percent or less of Chapter 1 funds for the majority of

Table 2.1

Distribution of Chapter 1 Schools and Students in Them[1] by School Poverty Quartile[2], 1985-86

School Poverty Quartile	Percent of Chapter 1 Elementary Schools	Percent of Chapter 1 Elementary Students[3]	Percent of All Students in Chapter 1 Elementary Schools
Lowest (0-15 percent poor)	20	12	19
Second lowest (15.1-30 percent poor)	24	17	22
Second highest (30.1-50 percent poor)	31	29	29
Highest (50.1-100 percent poor)	25	43	30
	100%	100%	100%

N = 348 (sample of public Chapter 1 elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] This table refers to students in public schools.

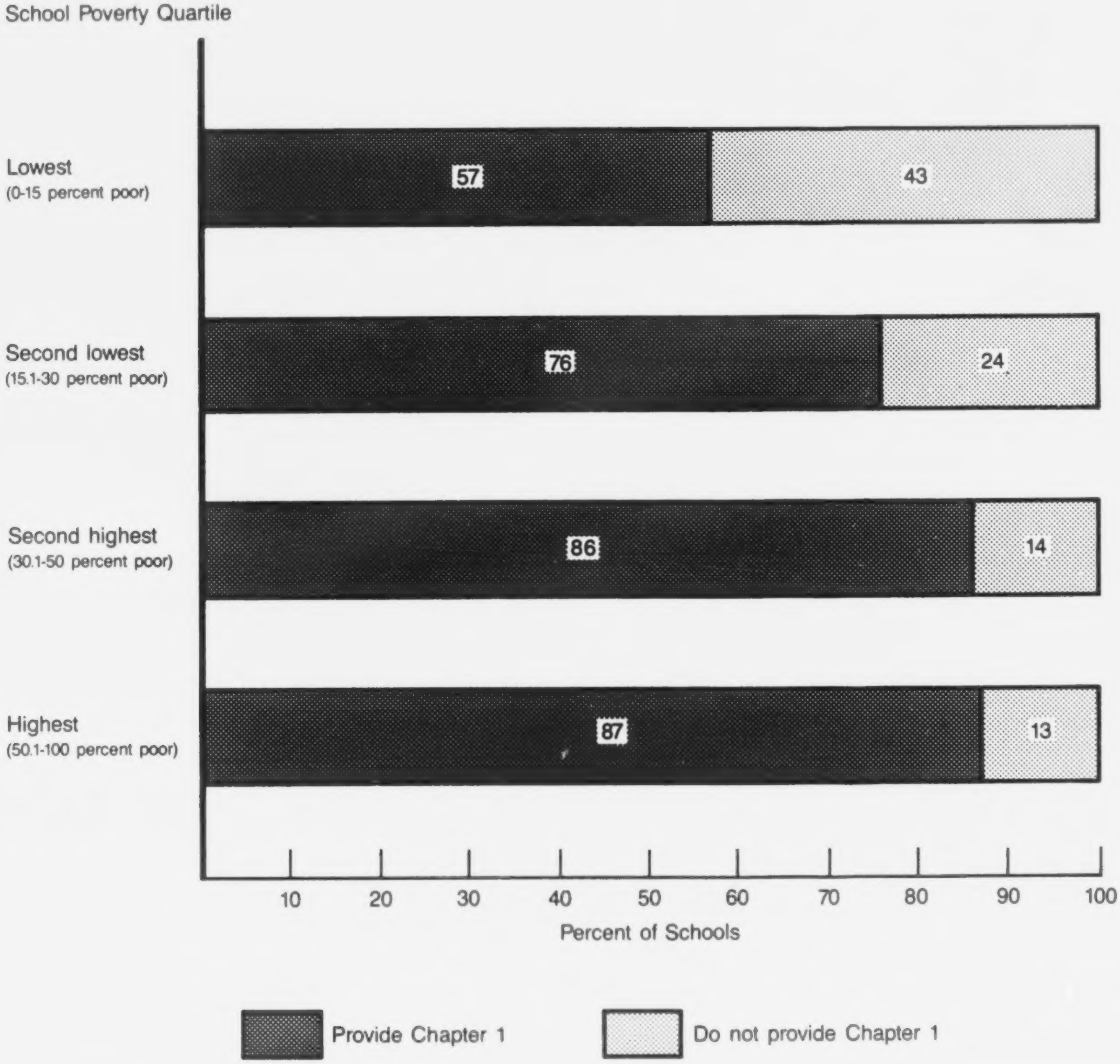
[2] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. Numbers are for public schools only.

[3] Percent does not sum to 100 due to rounding.

Table reads: Of all Chapter 1 elementary schools, 20 percent are in the lowest school poverty quartile. Of all Chapter 1 elementary students, 12 percent are in the lowest school poverty quartile. Of all students in Chapter 1 elementary schools, 19 percent are in the lowest school poverty quartile.

Figure 2.3

Presence of Chapter 1 Services in Public Elementary Schools, by School Poverty Quartile[1], 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year.

Figure reads: Of all public elementary schools in the lowest school poverty quartile, 57 percent provide Chapter 1 services and 43 percent do not provide Chapter 1 services.

these States (Funkhouser & Moore, 1985).[10] In districts visited by the National Assessment's Resource Allocation Study, students served in non-Chapter 1 schools by State or local remedial programs generally received a much lower level of compensatory education service than students served in Chapter 1 or multi-funded projects.

We also find that some schools not served by Chapter 1 have very high rates of poverty, while some Chapter 1 schools have very low rates of poverty. According to the School Survey, about 1,100 unserved schools, or about 10 percent of the unserved elementary schools nationwide have poverty rates of 60 percent or higher. Yet about 3,500 participating schools, or nearly 10 percent of the elementary schools served by Chapter 1, have poverty rates of 9 percent or less. Figure 2.3 shows that 57 percent of elementary schools with the lowest poverty rates receive Chapter 1 services, even though Table 2.1 shows that only 12 percent of Chapter 1 elementary students attend these schools.

Characteristics of Chapter 1 Students

Chapter 1 served approximately 4.9 million students during the 1984-85 school year, according to the most recent national data from the Title I/Chapter 1 Evaluation and Reporting System, or TIERS (Gutmann & Henderson, 1987). Thus, Chapter 1 reaches about 11 percent of all school-age children, as it has since the mid-1970s. In 1984-85, 90 percent of all Chapter 1 students were enrolled in elementary grades (pre-kindergarten through grade 8), and 10 percent were enrolled in secondary grades (grades 9-12), according to TIERS data.

Chapter 1 students are more likely to be classified as White than any other racial or ethnic category, as indicated in Figure 2.4. The percentages of Black and Hispanic students served by Chapter 1 (29 percent and 22 percent) are much higher than their

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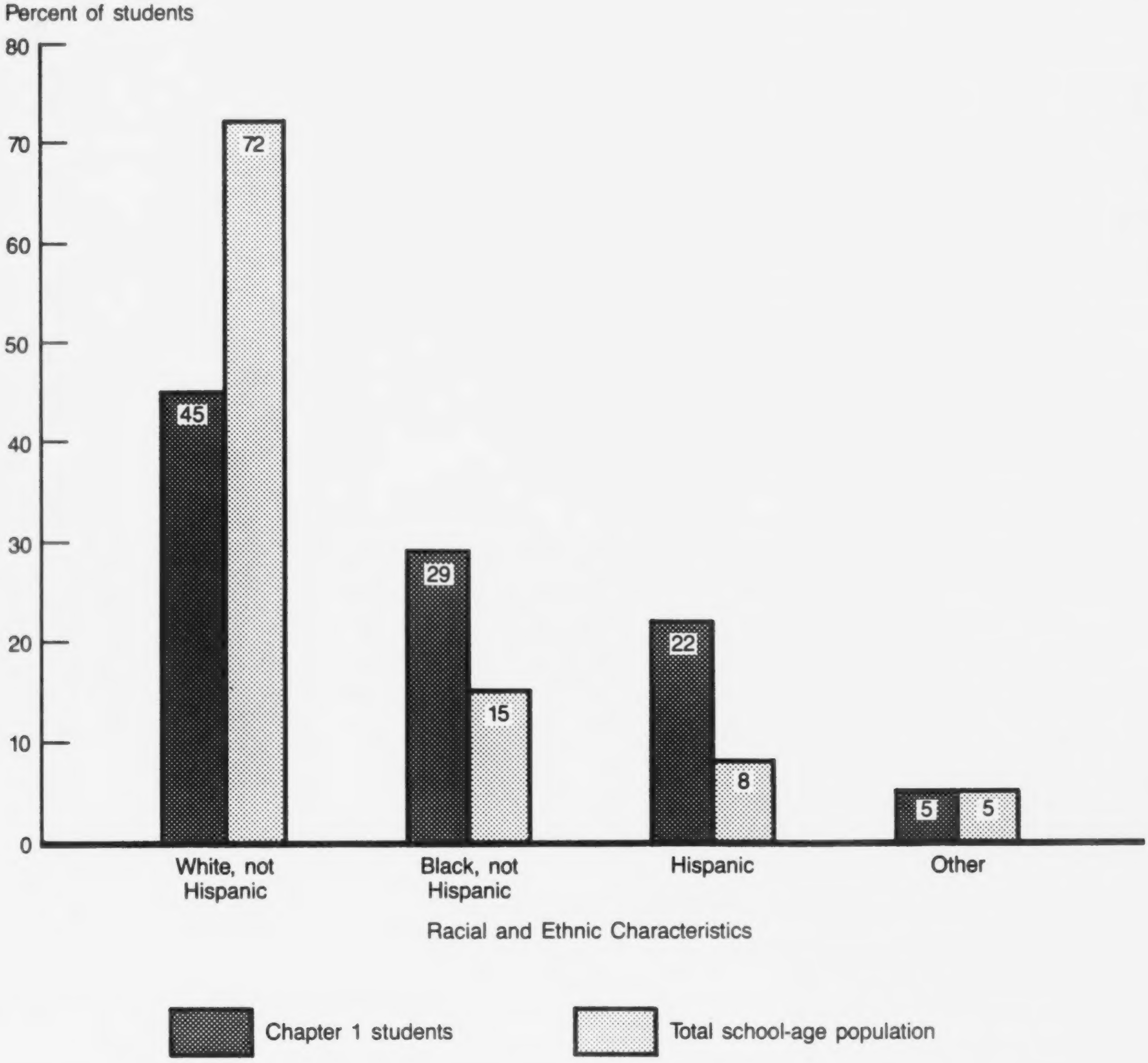
[10] By 1985-86, the number of states providing State compensatory services had increased to 19 (Funkhouser, 1986).

Figure 2.4

Racial and Ethnic Characteristics of Chapter 1 Students[1] Compared to the Total School-Age Population, 1984-85



Source: School-age population figures are based on racial and ethnic data for school-age children from the March 1984 U.S. Current Population Survey data reported in the National Assessment's first interim report (Kennedy, Jung, & Orland, 1986, Appendix E, p. 9) Chapter 1 figures are from A Summary of Chapter 1 Participation and Achievement Information for 1984-85, Gutmann & Henderson (1987).

[1] New York and Vermont did not report these data.

Figure reads: Of all Chapter 1 students, 45 percent are White, not Hispanic. This compares with 72 percent of the total school age population.

respective percentages in the school-age population (15 percent and 8 percent); the percentage of White students served (45 percent) is lower than their percentage of the school-age population (72 percent).

Poverty Status of Chapter 1 Students

No data sources provide recent estimates of the number of Chapter 1 participants living in poor households. Data from 1976 indicated that 42 percent of Title I participants in grade 1-6 were from poor families, compared to 21 percent of the total population of students in these grades, as reported in the Assessment's first interim report. However, the Congressional Research Service and the Congressional Budget Office estimated in 1985 that childhood poverty grew from 16 percent of all children in 1976 to 22 percent in 1983, a 38 percent increase. Because the number and percentage of children living in poverty have increased since 1976, it is reasonable to assume that a larger percentage of today's Chapter 1 participants are poor compared to those in the mid-seventies.

The Targeting Study requested information on the poverty status of Chapter 1 participants in 30 school districts.[11] In those districts, about 70 percent of the elementary students served by Chapter 1 were from poor families, as compared with a poverty rate of 53 percent for all students in Chapter 1 elementary schools. Given the small sample size and the deliberate oversampling of districts with high rates of poverty, the study's data cannot be generalized to the Chapter 1 population as a whole. However, they do suggest that, especially in districts with high rates of poverty (where most Chapter 1 students are served), a very high percentage of Chapter 1 students are from low-income families.

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[11] For the Targeting Study, poverty status was based on data available in the records of districts visited: the eligibility of Chapter 1 participants for free or reduced-price lunch or AFDC counts.

Achievement Status of Chapter 1 Students

The National Assessment's second interim report reviewed evidence from several sources showing that Chapter 1 participants achieve at lower levels than the national population, when tested at their entry into the program. On average, for example, second-grade students entering Chapter 1 programs score at the 29th percentile on standardized tests of reading achievement, while entering twelfth-graders score at the 16th percentile (based on 1983-84 TIERS data collected on annual testing cycles, as analyzed by Carpenter & Hopper, 1985). Secondary students tend to enter the program at very low achievement levels, relative to students in elementary grades. This pattern of lower entering achievement of Chapter 1 participants in the upper grades has been a stable program feature since TIERS data were first collected in the 1979-80 school year.

More recent (but not nationally representative) data from the Targeting Study show that, in each sample district and each grade level examined, Chapter 1 reading participants achieved at substantially lower levels than other students. The entry achievement levels of Chapter 1 participants in these districts were stable throughout the early and mid-eighties, the period for which achievement scores were examined, even though participants' achievement levels varied considerably across Chapter 1 districts and schools and across grade levels.

Despite the low average achievement of Chapter 1 elementary reading participants in the Targeting Study sample, many students who scored below the 25th percentile[12] did not receive Chapter 1 services.[13] More than half the districts in the sample reported that Chapter 1 did not serve 30 to 50 percent of the students who scored below the 25th percentile and attended grades and schools served by Chapter 1. On average, Chapter 1 students did not serve 36 percent of such students in the 30 sample districts. Twenty-three percent of the students who scored below the 25th percentile and attended the grades and schools that Chapter 1 served did not receive any form of special help--from Chapter 1, State or local compensatory education programs, special education, or other programs for students with special needs. (These figures would be larger if they took into account students scoring below the 25th percentile in schools not served by Chapter 1, many of which are middle or secondary schools.) Although these data cannot be generalized to the Chapter 1 population as a whole, they suggest that many low achieving students receive neither Chapter 1 nor other special program services.

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[12] The 25th and 50th percentile levels are used in this report to indicate very low achievement and average achievement, respectively. They are not established as criteria or cut-off points in the law. Each of these criteria can indicate somewhat different levels of mastery on different standardized tests used for a single grade.

[13] Estimates of student achievement from the Targeting Study were based on tests administered by their school systems; the National Assessment did not administer tests of student achievement.

At the other extreme, a small proportion of Chapter 1 participants score at or above the 50th percentile. While the Targeting Study and other evidence indicate that districts generally comply with the law in selecting program participants, that study found that 11 percent of the Chapter 1 participants in its sample districts scored at or above the 50th percentile although there was considerable variation across districts. Almost half of the 30 sample districts served few, if any, students who scored at or above the 50th percentile. Yet, in two of the districts, a third or more of the elementary-grade Chapter 1 participants scored at or above this level (though most scored close to the 50th percentile). As discussed later in the chapter, this service pattern does not necessarily indicate illegal or inappropriate targeting of Chapter 1 services; it may result from a district enrolling relatively few low achievers in its Chapter 1 schools.

TIERS data also suggest that some program participants are not low achievers relative to other students nationally. TIERS data from the 1984-85 school year show that, while the average reading pretest scores for Chapter 1 participants in grades 2 through 5 are quite low nationally, some States have fairly high average pretest scores for their Chapter 1 participants. For example, the average pretest score of second-grade Chapter 1 reading students nationally was at the 28th percentile. Yet, in eight of the 40 States reporting such data for the 1984-85 school year, the average pretest score for these second-graders was at or above the 35th percentile, and two States had average pretest scores for their Chapter 1 second-grade reading participants that were at or above the 40th percentile. High average pretest scores in these States suggest that some of their elementary Chapter 1 participants may have scored above the 50th percentile.

The failure of Chapter 1 to serve many low achievers and the participation in Chapter 1 of a small proportion of students close to the national average, found in the Targeting Study's 30 district sample, was also documented in analyses of survey data about Title I presented in our first interim report to Congress (Kennedy, Jung, & Orland, 1986).

THE SELECTION OF CHAPTER 1 SCHOOLS AND STUDENTS

Factors Determining School and Student Selection

Both the Targeting Study and a 1987 study conducted by the U.S. General Accounting Office (GAO) documented that districts generally follow Chapter 1 school and student selection requirements. As a result, districts generally select schools with percentages of poor children that exceed the district's average poverty rate, or the average poverty rate for the grades that the district selects to receive Chapter 1 services, and Chapter 1 students tend to be lower achievers than other students in the schools and grades served by Chapter 1. Both studies also found that districts use the law's flexibility to tailor their Chapter 1 selection decisions to local circumstances and preferences about the design and distribution of Chapter 1 services.

Relationships Between District Poverty and School Selection

The characteristics of schools that are selected for Chapter 1 depend largely on the poverty rates of the districts in which they are located. At the district level, Chapter 1 generally requires that projects be located in school attendance areas "having the highest concentrations of low-income children" relative to other areas in the district (Section 556(b)(1)(A)). Because Chapter 1 funds are distributed to 90 percent of all school districts, many districts with low poverty rates receive Chapter 1 funds. Inevitably, schools with the "highest concentrations of low-income children" in these districts are sometimes schools with low poverty rates, relative to other schools in the nation. As seen in Figure 2.5, almost all (99 percent) of the Chapter 1 elementary schools with the lowest poverty rates are located in districts with poverty rates below the national midpoint of 12.5 percent.

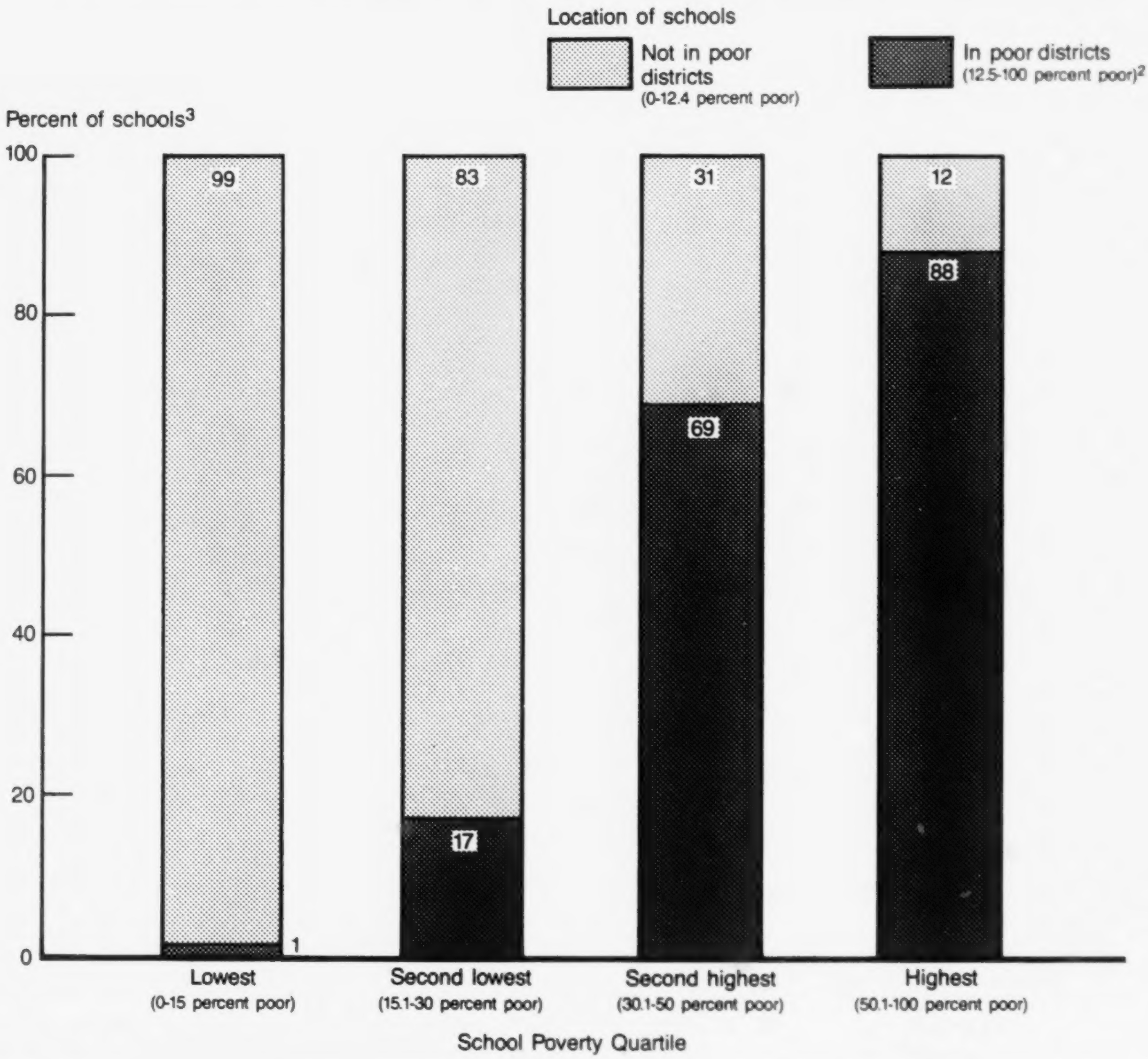
As shown in Figure 2.5, few Chapter 1 elementary schools with very high concentrations of poor children by national standards are found in districts with low poverty rates. In fact, only 12 percent of such schools are located in districts that are not poor--those with poverty rates below the national midpoint. Thus, while it is possible for a district with a low poverty rate to have one or more schools located in "pockets of poverty" by district standards, such schools rarely have high poverty rates by national standards.

Earlier in this chapter, we noted that about 13 percent of all schools in the highest quarter of school poverty do not receive Chapter 1 funds. Figure 2.6 shows that almost all (90 percent) of these unserved schools with the highest poverty rates are located in poor districts--those with poverty rates above the national midpoint.

A major reason for this pattern is that these unserved schools have high poverty rates by national standards but not by the standards of their own districts. The Targeting Study contrasted Chapter 1 schools in districts with low rates of poverty to

Figure 2.5

Location of Chapter 1 Elementary Schools, by School and District Poverty[1], 1985-86



Sources: Survey of Districts and Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. District poverty rates were obtained from 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

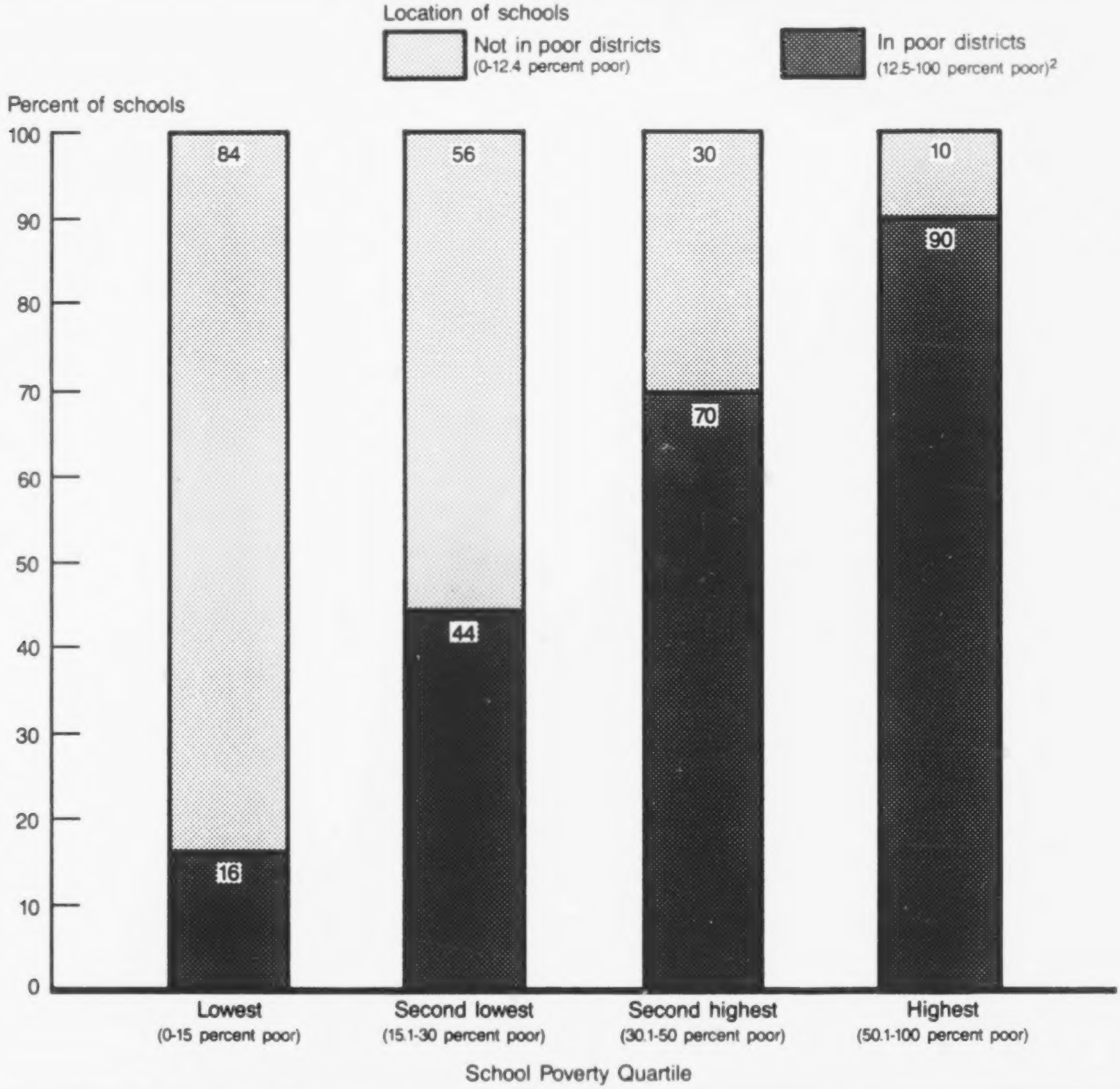
[2] Poor districts are those with poverty rates above the national midpoint.

[3] Percents may not sum to 100 due to rounding.

Figure reads: Of the quarter of Chapter 1 elementary schools with the lowest rates of poverty, only 1 percent are located in poor districts, and 99 percent are not located in poor districts.

Figure 2.6

Location of Non-Chapter 1 Elementary Schools, by School and District Poverty[1], 1985-86



Sources: Survey of Districts and Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. District poverty rates were obtained from 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

[2] Poor districts are those with poverty rates above the national midpoint

Figure reads: Of the quarter of Non-Chapter 1 elementary schools with the lowest rates of poverty, 16 percent are located in poor districts, and 84 percent are not located in poor districts.

non-Chapter 1 schools in districts with high rates of poverty. In this sample of 30 districts, the average poverty rate of Chapter 1 schools in low-poverty districts was 9 percent. In contrast, the average poverty rate of non-Chapter 1 schools in the study's high-poverty districts was 25 percent. Of the 812 elementary schools in the Targeting Study's sample districts, 131 schools with poverty rates below the national midpoint (30 percent poor) met the basic eligibility criterion for Chapter 1 because they had poverty rates above their district's average, while 105 schools in the sample with poverty rates above the national midpoint did not meet this criterion because they had poverty rates that were below their district's average.

The Targeting Study found that districts with high rates of poverty often choose to concentrate services on their poorest schools, even though their less poor schools often have very high poverty rates by national standards. For example, one district in this sample, which is in the highest quarter of district poverty, provides Chapter 1 services in 25 of its 39 schools. The average poverty rate in the district's non-Chapter 1 schools is 39 percent, well above average by national standards.

Effects of Resource Allocation Decisions on School and Student Selection

Local policies for allocating resources within districts affect the selection of both schools and students for Chapter 1. In determining how many schools and students to serve, administrators must consider such factors as the size of their Chapter 1 budget, the degree and types of educational need, the availability of other compensatory services in the district, and beliefs about the appropriate level and mix of services under these conditions.

Past research documented the preferences of districts to serve as many schools as possible with their Title I funds (Advanced Technology, Inc., 1983). The District Survey indicated that administrators in almost 60 percent of the nation's school districts try to provide Chapter 1 services to as many schools or students as possible.

However, the Resource Allocation Study found that the program's "size, scope and quality" requirement (Section 556(b)(3)), in combination with the size of districts' Chapter 1 budgets, frequently resulted in districts limiting the number of Chapter 1 schools and participants.[14]

Local policies regarding the size of Chapter 1 classes provide one example of a preference that sometimes guides decisions about how many schools and students to select. Districts have considerable discretion in determining instructional ratios and, according to survey findings and data from the Resource Allocation Study, they exercise this discretion. One district, for example, designed its program to ensure that teachers provided all Chapter 1 services in small groups. In order to achieve this objective, the district served only its schools with the highest poverty rates and restricted Chapter 1 participation to students scoring below the 35th percentile. Another district in the Resource Allocation Study sample created large Chapter 1 classes in order to spread its Chapter 1 resources to many schools and students. These examples indicate that some districts design their selection policies to achieve a desired class size, while others adjust class size to ensure desired levels of school and student participation.

Within districts, schools sometimes select different proportions of low achievers because of mismatches between the resources allocated to schools and the numbers of low achieving students they enroll. If some schools are allocated fewer resources than their educational needs dictate, the result can be waiting lists of unserved students while other schools in the district can select all their eligible students. Resource discrepancies across schools can also lead to differing levels of intensity in program services (e.g., pupil/staff ratios), as we will discuss in Chapter 3.

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[14] Districts visited for the Resource Allocation and Program Design Studies indicate that the professional judgment of district officials, not outside authority, led them to design projects that delivered adequate resources to participants. However, the history of this requirement's existence has almost certainly helped to shape current professional judgment in Chapter 1 programs.

The Resource Allocation Study found that, in most of the 17 districts visited, officials take students' educational needs into account in distributing their Chapter 1 resources. ED's official correspondence continues to encourage districts to distribute Chapter 1 resources to schools on the basis of students' needs, although Chapter 1 eliminated a Title I provision that explicitly directed districts to allocate resources to schools "on the basis of the number and needs of children to be served" (Sec. 124(e) of Title I). But, while districts use some measures of students' needs to distribute funds, the levels of resources in Chapter 1 schools frequently fail to match the building level needs.

Several reasons underlie mismatches of needs and resources among schools (Resource Allocation Study). First, a number of districts use local resource allocation rules in addition to student needs in allocating their Chapter 1 funds. In fact, several districts distribute a portion of their Chapter 1 resources uniformly to all eligible schools. Thus, some districts give each Chapter 1 school the same baseline resources, for example, a reading teacher and an instructional aide, regardless of the number of low achievers. Second, districts' measures of schools' needs do not always accurately reflect their real needs. For example, when allocating resources for both their reading and mathematics projects, some districts count individual students only once even though they score low on both reading and mathematics tests. Third, districts often allocate staff to buildings in whole units (i.e., one teacher, one aide) rather than in fractions of staff positions. Many districts, particularly those with geographically dispersed schools, are reluctant to assign a Chapter 1 teacher to more than one building. However, the allocation of staff to schools in whole units results in some schools gaining and others losing Chapter 1 resources, relative to their actual level of educational need. Finally, districts tend to make only marginal changes from one year to the next in their allocation of Chapter 1 services and staff to schools. This local policy is intended to minimize program disruption. It can lead, however, to unevenness in the match of Chapter 1 resources to educational needs among schools within a district, especially if these needs shift across schools.

Use of Chapter 1's School Selection Options

Chapter 1 services generally can be provided only in schools whose attendance areas contain the highest concentrations of low-income students, relative to the other schools in the district. However, exceptions are available that can be used to qualify schools that do not meet this criterion. The flexibility to spread Chapter 1 services across schools is balanced in the law by the requirement that districts concentrate Chapter 1 funds on projects that "are of sufficient size, scope, and quality to give reasonable promise of substantial progress toward meeting the special educational needs" of program participants (Section 556(b)(3)).

Over half (54 percent) of all Chapter 1 districts need not make school selection decisions, according to the National Assessment's District Survey. This occurs for two reasons. First, roughly 48 percent of all Chapter 1 districts have only one school or only one school at the grade(s) they have chosen to serve. Second, districts with a total enrollment below 1,000 students need not make school selection determinations because a 1983 Chapter 1 provision allows them to serve all their schools. In the 1985-86 school year, about 6 percent of all Chapter 1 districts used this option. Thus, districts not making school selection decisions tend to be small ones; in fact, they enroll about 10 percent of all Chapter 1 students.

On the other hand, 46 percent of all Chapter 1 districts, enrolling about 90 percent of all Chapter 1 students, must make school selection decisions. Of these districts, nearly all (95 percent) use one or more of the program's school selection options (shown in Table 2.2), rather than simply selecting all schools above the district's average poverty rate.

The grade span option allows any participating district to limit services to a designated grade span (e.g., elementary, middle, high school grade spans, or grades within those categories) and allows a school to receive Chapter 1 funds if its poverty rate is above the grade span's average rate rather than the average of the district as a whole. Forty-eight percent of districts that must select schools use this option, enrolling 47 percent of Chapter 1 students (Table 2.2). This option is frequently used to concentrate program resources in elementary and middle schools (Targeting Study). The option is also sometimes used to extend services to one or more secondary schools that may have a poverty incidence below the average for all schools in the district but above the average poverty level for secondary schools.

The uniformly high concentration of poverty option allows districts to serve all of their schools, or all of their schools in a particular grade span, if there is only a narrow range in the rate of poverty across schools. This option is used to add schools that would not qualify under the general criterion for school selection. Districts with few schools use it most, since larger districts rarely have the necessary narrow range of poverty rates among their schools.

The use of this option has increased since 1983, when ED expanded the definition of uniformity.[15] Under what Title I called the "no wide variance option," the range could be 5 percent. Under the new definition, the total range of poverty between "richest" and "poorest" schools may be no more than the greater of 10 percentage points or one-third of the percentage of children from low-income families in the

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[15] This change was specified in the June 1983 Nonregulatory Guidance (NRG), which is binding on the Federal government but not on States and school districts. In practice, States and school districts depend on the NRG as a guide to practices that comply with Chapter 1's legal framework.

Table 2.2

Options Used by Chapter 1 Districts for Selecting Schools[1] to Receive Chapter 1 Services, 1985-86

Options Used to Select Schools[2]	Percent of all districts	Percent of districts that must make school selection decisions	Percent of all Chapter 1 students in districts using option
Group schools according to grade spans and designate grade spans to be served	22	48	47
Select schools with uniformly high concentrations of children from low-income families	21	45	22
Select a school in an otherwise ineligible school attendance area if the school enrolls a percentage of low-income students similar to that of eligible school attendance areas (i.e., attendance vs. residence)	12	26	32
Select schools with 25 percent or more children from low-income families (i.e., the "25 percent rule")	10	22	32
Continue to serve a school no longer eligible if it was eligible in either of 2 preceding years (i.e., "grandfathering")	6	13	34
Skip a higher ranked school and serve a lower one if it has a greater degree of educational deprivation (i.e., "achievement vs. poverty")	4	8	7
Skip eligible schools if comparable services are being received from non-Federal sources (i.e., "skipping schools")	3	6	9

N = 1,009 (sample of school districts). Table values are based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

[1] Respondents were asked about options used to select school attendance areas, which are defined as the geographical area in which the children who are normally served by a particular school reside.

[2] Categories are not mutually exclusive.

Table reads: Of all Chapter 1 districts in the nation, 22 percent group schools according to grade spans and designate grade spans to be served. These districts represent 48 percent of the districts that must make school selection decisions and they enroll 47 percent of all Chapter 1 students.

district as a whole. The percentage of school districts using the uniformly high concentration option has increased from 29 percent of all districts required to select schools in 1981-82 (Advanced Technology, Inc., 1983) to 45 percent in 1985-86. In effect, this expansion permits Chapter 1 districts in which all schools (or all schools in a grade span) have poverty rates of 10 percent or less to place Chapter 1 projects in all of their schools (or in each school serving a particular grade span). Districts with the lowest poverty rates substantially increased their use of this option after the 1983 change--from 25 percent of all such districts required to select schools in 1981-82 to 65 percent of these districts in 1985-86.[16] Our survey data do not allow estimates of the effect that this change may have had on the number and characteristics of Chapter 1 schools nationwide. Because the districts that use this option tend to contain few schools, however, we would not expect this effect to be large.

The attendance vs. residence option, used by 26 percent of districts that must select schools, enrolling 32 percent of Chapter 1 students, does not usually affect the number of schools served by Chapter 1. Under this option a district may provide Chapter 1 services to public school(s) in otherwise ineligible school attendance areas if the percentage of children from low-income families attending the school is substantially the same as the percentage of such children residing in an eligible attendance area. Districts use this exemption: (1) when many students in a school attendance area attend private schools, leaving a substantial percentage of low-income students enrolled in the public schools; and (2) when a district establishes magnet or alternative schools (Targeting Study). Under either of these circumstances, residence-based calculations are not appropriate, since the poverty rate in the attendance area is an inaccurate estimate of the poverty rate of the school.

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[16] One district's use of this option, documented in the Targeting Study, is considered illegal by ED. At the suggestion of its State educational agency, this district followed a two-step school selection procedure. First, the district selected some of its elementary schools whose poverty rate was above the grade span's average. Then the district qualified the rest of its elementary schools, whose poverty fell below the average for this grade span, by applying the uniformly high concentration option for these schools only.

The 25 percent rule permits a district to extend Chapter 1 services to any school in which 25 percent or more of the students in its attendance area are from low-income families, even if the districtwide average is higher. Twenty-two percent of districts that must select schools, enrolling 32 percent of Chapter 1 students, use this option. Survey data indicate that this option is used most often in districts with the highest poverty rates. However, 25 percent is not a particularly high poverty rate by national standards; indeed, 59 percent of all public elementary schools report poverty rates of 25 percent or more. Comparable data are not available for secondary schools. Some districts sampled in the Targeting Study more than doubled the number of schools they were able to serve using this option.

Under the school grandfathering option, a school may remain eligible for Chapter 1 services for one year, if it was eligible in either of the two preceding years, or remain eligible for two years, if it was eligible in both preceding years. This option is used in 13 percent of districts that must select schools, enrolling 34 percent of Chapter 1 students. Large districts use it much more frequently than small districts. Although schools selected for Chapter 1 using this option typically have lower proportions of poor children than other Chapter 1 schools within their districts, most of them have poverty rates close to their districts' (or grade spans') overall average, since they must have been eligible without the option within the past two years (Targeting Study). The option's major advantage to school districts is that it provides continuity of services during periods of population or enrollment fluctuation.

The other two school selection options--the skipping schools option and the achievement vs. poverty option--do not substantially affect the number of schools that receive Chapter 1 funds since districts seldom use them.

The school selection options help districts to tailor their Chapter 1 projects to their own circumstances or preferences regarding instructional designs, staffing arrangements, and service continuity. They can affect the numbers and characteristics of participating schools, sometimes in the direction of including more schools with low poverty rates by district standards and sometimes in the opposite direction. For example, the uniformly high concentration of poverty option and, to a lesser extent, the 25 percent rule result in the provision of Chapter 1 services to schools with poverty rates below their district average. Districts' use of the grade span option also prevents some schools with high poverty rates, by national standards, from offering Chapter 1 services; these omitted schools are generally at the secondary level, although exercise of this option permits the expansion of services to secondary schools in some instances. The grandfathering provision is used to promote continuity in Chapter 1 services, but can also add schools with poverty rates slightly below their districts' average.

When any of the school selection options is used to increase the number of schools receiving Chapter 1 services, its effect on the poverty characteristics of Chapter 1 schools nationwide depends on the characteristics of the districts using the option. In districts with high rates of poverty, serving more schools often results in the inclusion of schools whose poverty rates are still high by national standards. In districts with low rates of poverty, serving more schools tends to result in the inclusion of schools with low rates of poverty by national standards.

School districts thus apply school selection options within a larger set of constraints, which include the total enrollment of poor children and local preferences for (1) maximizing the number of schools being served, (2) concentrating Chapter 1 services in order to enhance their quality and effectiveness, or (3) maintaining stability in the provision of Chapter 1 services.

Policies and Practices in Selecting Chapter 1 Participants

Once districts have selected their project schools (and the grade levels to be served within these schools, if the entire school is not being served), they must select program participants based on procedures established in the law. Four decisions are involved in this process, although districts tend to continue longstanding policies and practices for selecting students rather than reconsidering each step every year (Targeting and Program Design Studies). The decisions include selecting student eligibility measures, determining criteria, deciding how, if at all, to apply teacher judgment, and deciding whether to use any of the student selection options.

Selecting Student Eligibility Measures

Districts may choose from several information sources in deciding how to identify eligible students. The sources include data from nationally standardized tests or from State or locally developed tests, results from informal diagnoses, academic records, and observations or judgments by professional staff. Data from the District Survey indicate that virtually all of the districts participating in the Chapter 1 program (97 percent) use standardized tests to select program participants, most often in combination with teacher judgments or other measures.

Determining Criteria for Student Eligibility

Districts have broad discretion in the cutoff score(s) as well as other criteria they use in determining a student's eligibility for Chapter 1. Whatever criteria are established, districts may choose to serve all eligible students, or they may elect to serve only a portion of this group so long as those selected include those in "greatest need."

Data from the Targeting Study illustrate the various cutoff scores that districts use in selecting program participants. Of the 30 districts in this sample, all used standardized test scores for selecting students to participate in Chapter 1 elementary reading programs. Six of these districts set their eligibility cutoff for Chapter 1 elementary reading services at the 50th percentile. Two districts in this sample established eligibility cutoffs at the 25th percentile or lower. Most districts in this sample (19 of the 27 districts) set their cutoff(s) between these two extremes.

Data from the Targeting Study also indicate that local decision makers express varying reasons for choosing their eligibility thresholds. Some districts set relatively high Chapter 1 eligibility cutoffs in order to gain flexibility in deciding which students to serve. For example, some districts in the sample with cutoff scores at the 50th percentile served considerably fewer students than were eligible for the Chapter 1 reading program. Another district in the sample, however, established a 50th percentile cutoff because it had very few low achieving students.

Applying Teacher Judgment

The vast majority of Chapter 1 districts rely on more than test scores when determining eligibility and selecting program participants. According to the District Survey, 91 percent of all Chapter 1 districts also use some form of professional judgment. As indicated in Table 2.3, 59 percent of the Chapter 1 districts using teacher judgment report that it is used in selecting program participants under special circumstances, such as when a student transfers into a participating school after the school year has begun.

More important, however, are three other uses of teacher judgment. First, in half of all Chapter 1 districts (50 percent), teachers nominate the students who are to be tested for Chapter 1 eligibility. In these districts, students are not considered for Chapter 1 participation unless they are nominated. In 47 percent of all Chapter 1 districts, teacher judgment is sometimes used to exclude students who score below their district's cutoff. Such use of teacher judgment is often exercised for students (1) who are receiving some other form of special instruction or (2) whose test scores appear

Table 2.3

District Use of Teacher Judgment to Determine Student Eligibility or to Select Chapter 1 Students, 1985-86

	Percent of Chapter 1 districts
Use of teacher judgment[1]	**91**
Reasons:	
For mid-year transfers, special referrals, and other special circumstances	59
To nominate students for testing that will determine their eligibility for Chapter 1 services	50
To decide that a student *below* a cutoff score will *not* receive Chapter 1 services	47
To decide that a student *above* a cutoff score will receive Chapter 1 services	44

N = 1,115 (sample of school districts). Table values are based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

[1] Categories are not mutually exclusive.

Table reads: In 91 percent of all Chapter 1 districts, some form of teacher judgment is used to determine student eligibility or to select students. In 59 percent of all Chapter 1 districts, teacher judgment is relied on for mid-year transfers, special referrals, and other special circumstances.

low in relation to their other achievement indicators (e.g., grades, other test scores). Conversely, in 44 percent of Chapter 1 districts, teacher judgment is sometimes exercised to include students in the Chapter 1 program who score above their district's cutoff but whose test scores appear high in relation to other performance measures. This use of teacher judgment results in the participation of students who may appear to be ineligible but are, in fact, educationally deprived, according to professional assessments.

An example from the Targeting Study illustrates the use of teacher judgment in student selection. A student who scored just above the district's cutoff for Chapter 1 participation was frequently absent. The decision was made to provide Chapter 1 services to the student because the student's teacher believed that the individual attention provided by Chapter 1 would improve both the child's academic performance and school attendance.

Using Student Selection Options

The 1983 Technical Amendments to Chapter 1 reinstituted four student selection options previously included in the Title I legal framework. These options permit exceptions to the general requirement that Chapter 1 participants be among the most educationally deprived students attending project schools, and hence they tend to expand the population of students eligible for or receiving Chapter 1 services. Like the school selection options, the purpose of these provisions is to help districts tailor the program's basic selection rules to local circumstances.

Under the formerly eligible student exception, students who are no longer in greatest need but were served in a previous year may continue to receive program services as long as they continue to be educationally deprived, based on their district's eligibility criteria. Districts use this option to allow students to consolidate or sustain gains they may have achieved in the preceding year(s).

The *transferred participants option* allows districts to continue Chapter 1 services to students who begin participation in one school year and are transferred during the school year to a nonparticipating school.

The *comparable services exception* allows districts to exclude educationally deprived students from Chapter 1 services if they receive services from non-Federal sources that are similar to Chapter 1 in nature and scope.

The *schoolwide project provision* allows a district to design its Chapter 1 project "to upgrade the entire educational program" (Section 556(d)(9)) of a school if at least 75 percent of the students attending the school are from low-income families. Because all students in such schools benefit from Chapter 1 services, this is the only option that permits the delivery of Chapter 1 services to students who are not defined as educationally deprived by their district. To qualify for this exemption, the district must (1) contribute resources for the schoolwide project in proportion to the percentage of students in the school who are not educationally deprived, (2) comply with certain planning and expenditure requirements, and (3) secure State approval of its schoolwide project plan. Chapter 3 discusses the implementation of this option.

The options applying to transferred participants and comparable services can result in some low achieving students being skipped for Chapter 1 services in favor of higher achievers. The options concerned with formerly eligible students and schoolwide projects can also result in the presence of higher achievers in the program.

The Targeting Study found widespread use of the formerly eligible student option. In fact, about 35 percent of the Chapter 1 elementary students in this sample who scored above their district's cutoff had been Chapter 1 participants the previous year. Because many of these students scored just above these cutoff levels, however, we do not know whether teacher judgment or the formerly eligible student option determined their placement.

Districts differ in their interpretations about how the formerly eligible student option should be used (Targeting Study). The law states that a student may participate in the program during the current year if the student was "in any previous year . . . identified as being in greatest need of assistance" so long as the student "continues to be educationally deprived" (Section 556(d)(6)). Some districts interpret this language to mean that former participants may receive Chapter 1 services even if their test scores are above their local cutoff for Chapter 1 eligibility. If districts have a cutoff at or close to the 50th percentile, this interpretation sometimes results in services to students whose scores are above the 50th percentile.

Districts in the Targeting Study sample seldom use three of the student selection options: the transferred participants option, the comparable services exception, and the schoolwide project provision.

Factors Determining the Characteristics of Chapter 1 Students

Two patterns arising in the selection of Chapter 1 participants create concerns for policymakers. These patterns are (1) the exclusion of very low achieving students and (2) the inclusion of some students who are not low achievers. Both patterns arise from the interplay of school and student selection procedures, local policies for allocating resources to schools, and Chapter 1 procedures for distributing funds to districts. As a guide to understanding the interaction of these factors, we summarize here the conditions that lead to each of these patterns.

Why Low Achievers Are Sometimes Excluded From Chapter 1

One reason that some low achievers do not receive Chapter 1 services is that they attend schools where Chapter 1 services are not provided. Earlier in this chapter, we noted that 13 percent of the elementary schools with the highest rates of poverty do not receive Chapter 1 funds and that they are almost all located in districts with high rates of poor children. These schools enroll many low achieving students.[17] Districts often decide not to serve high poverty schools in order to provide more resources to schools with even higher poverty rates. For example, if districts with many poor schools made greater use of the 25 percent rule, more elementary schools with high poverty rates would be served. However, many districts choose not to use this option, preferring to concentrate services on their most needy schools rather than spreading them more thinly to additional buildings (Targeting Study).

Similarly, many districts choose to provide Chapter 1 services only at certain grade levels. These restrictions necessarily deny services to low achieving students in the unserved grades. For example, districts often use the grade span option to provide services in elementary grades, thus denying services to low achievers in secondary grades. One reason that districts use this option is a conviction that early intervention is the best strategy for compensatory education. A second reason is to permit the design of more intensive projects in the grades that are served.

Among the schools and grades receiving Chapter 1 funds, four factors explain the presence of some unserved low achieving students. First, many of these students are served by other special programs. Thus, low achieving students who participate in special education programs, State or local compensatory programs, or programs for limited-English-proficient (LEP) students may not receive Chapter 1 services. Within the grade spans served by districts in the Targeting Study's 30-district sample, special programs other than Chapter 1 provided services to almost one-half of the elementary students identified as eligible for, but not served by, Chapter 1. The other half of these students did not participate in any special program.

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[17] Precise estimates of the number of low achievers in high poverty non-Chapter 1 elementary schools could not be made from the School Survey because of its small sample size for this category of schools. However, the achievement levels of students in these schools, as reported by school principals, appears to be roughly comparable to those of Chapter 1 schools with similar poverty rates.

A second reason that low achieving students in Chapter 1 schools and grades do not participate in the program is that districts often restrict Chapter 1 services to the very lowest achievers in order to provide an adequate level of services to participating students. This can leave students unserved who are achieving at only slightly higher levels (Targeting Study).

A third reason is that uneven relationships between educational needs and allocations sometimes cause schools to exclude low achievers who might be served if they attended other schools in the district (Resource Allocation Study). Districts consider other factors besides the number of low achievers when they allocate their Chapter 1 resources to schools. For example, the desire to have uniform Chapter 1 staffing across schools, or to maintain previous school staffing levels so as to minimize program disruption, may be considered when districts make resource allocation decisions. As a result, some schools with many low achievers receive less funding than is warranted by their schools' educational need, and other schools receive more.

Finally, the Targeting Study also found that some low achieving students are not selected for Chapter 1 services because teachers believe that they have less need for compensatory services than do other students with higher standardized test scores. As indicated earlier in this chapter, teachers in about half of Chapter 1 districts sometimes decide that students who score below their district's selection cutoff should not receive Chapter 1 services.

In most districts visited in the Targeting Study, teachers in different schools employed similar criteria to decide whether or not a student should receive Chapter 1. However, in some districts, Chapter 1 missed very low achieving students because the district relied on teacher judgments for selecting students but did not establish, or did not enforce, standard rules for their application. Compared to districts with more systematic student selection policies and procedures, districts with unsystematic student selection procedures were more likely to omit some very low achievers from all special programs. At the same time, these districts provided Chapter 1 services to some students who scored above the district's eligibility cutoff. Seven of the 30 districts in the Targeting Study did not have systematic criteria for applying professional judgment. The lack of systematic criteria appears unrelated to other district characteristics, such as poverty rates, urban status, enrollment, or basic method for selecting students.

The characteristics of students in one of these seven districts illustrate the effects of unsystematic application of teacher judgment. This medium-sized rural district had 132 students who scored below the 25th percentile in grades 2 through 8. Forty-three of these lowest achieving students did not participate in either Chapter 1 or any other special program. Furthermore, of the 208 students in these grades who were served by Chapter 1 during that year, 40 scored above the 50th percentile.

Why Chapter 1 Sometimes Serves Students Who Are Not Low Achievers

Several conditions can interact to result in the Chapter 1 participation of students whose test scores are at or above the 50th percentile, as discussed in the Targeting Study. This result does not necessarily indicate local malfeasance, especially if the district enrolls very few low achievers in its Chapter 1 schools. A district in the Targeting Study sample illustrates how this condition can result in the Chapter 1 participation of students scoring above the 50th percentile. This large suburban district enrolls 20,000 and has a districtwide poverty rate of 1 percent. Its formula-eligible students generated a Chapter 1 allocation over $110,000 in 1985-86. This district offered Chapter 1 services in two of its 22 elementary schools but none of its three secondary schools. The average poverty rate of its two Chapter 1 schools, about 2 percent, was above the district's average poverty level though still quite low. The average achievement level of these two schools, at the 59th percentile, was well above the national average but below that of the other elementary schools in this district, at the 65th percentile. This district served all 30 of the students in its two Chapter 1 schools who scored below its 50th percentile cutoff score. To fill the program's additional slots, these two schools served an additional 23 students. All of the additional students scored above the 50th percentile and some well above this cutoff, even though these students were among the neediest students in these two schools.

The use of some school and student selection procedures also can result in the selection of students above the 50th percentile. Use of any procedure that limits the number of schools or grades served can sometimes result in services to students with achievement levels higher than students who would be served if more of the district's schools or grades were participating in Chapter 1. One small district in the Targeting Study illustrates this effect of using the grade span option. This district has only one school, which serves kindergarten through ninth grade. The district decided to limit its Chapter 1 program, which served 12 students, to kindergarten through fourth grade. Of the 108 students in these grades, only six scored below the district's 50th percentile cutoff. Five of these students were already served in special education programs, leaving only one to participate in Chapter 1. As a result of this district's number and distribution of low achievers and its use of the grade span option, the other 11 students served in this district's Chapter 1 program scored above the 50th percentile.

Student selection provisions can also result in Chapter 1 services to some students who are not low achievers. As noted earlier in this chapter, some districts use Chapter 1's formerly eligible option to serve students with achievement scores above their district's eligibility cutoff.

In addition, measurement errors in standardized tests can result in the Chapter 1 participation of students with high scores but legitimate educational needs. As indicated earlier, teachers in almost half the Chapter 1 districts sometimes decide that students above their districts' selection cutoff should receive Chapter 1 services. Both the Targeting Study and the GAO study (1987) found that such professional assessments are often used to overrule invalid or misleading test scores, resulting in the participation of some apparently ineligible students who are judged to be educationally deprived.

Because most districts combine test scores with teacher judgments or other criteria to select students for Chapter 1, they sometimes consider the educational needs of students who score just above the district's test score cutoff. This means that districts who set their eligibility cutoff at or near the 50th percentile are more likely to serve some students scoring above this level than districts whose cutoff is lower. However, our data indicate that an eligibility criterion set at the 50th percentile need not by itself lead to the selection of students above this level.

Finally, districts may not have established uniform student selection policies for Chapter 1, thus permitting teachers considerable discretion in making their own judgments for student selection, without the benefit of districtwide criteria. Or they may allow schools to implement the district's policies however they wish. As discussed earlier, these districts are more likely to serve students in Chapter 1 who score above average and not serve some lower achieving students in any special program.

SUMMARY OF FINDINGS REGARDING THE DISTRIBUTION AND SELECTION OF CHAPTER 1 SCHOOLS AND STUDENTS

Six major findings emerge from the analyses reported in this chapter.

- **Almost all of the nation's school districts (over 90 percent) receive Chapter 1 funds. Three-fourths of all elementary schools and over one-third of middle and high schools provide Chapter 1 services.**

Because any district with at least 10 low-income students is eligible for Chapter 1 funds, almost all school districts provide program services. As a result, the poverty characteristics of Chapter 1 districts are virtually the same as those of public school districts generally. Due to a desire to concentrate Chapter 1 funds on a limited number of eligible schools, many districts restrict their Chapter 1 programs to the elementary grades, a practice that often reflects local beliefs in the value of early educational intervention for educationally disadvantaged students. The large percentage of elementary schools that offer Chapter 1 means that elementary schools with low rates of poverty are almost as likely to offer Chapter 1 services as are elementary schools with high poverty rates. Secondary schools are much less likely than elementary schools to provide Chapter 1 services.

- **About three-fourths of all Chapter 1 students are enrolled in districts and schools with poverty rates above the national midpoint.**

While districts and schools with low rates of poverty are as likely to provide Chapter 1 services as are districts and schools with high rates of poverty, most Chapter 1 students are enrolled in districts and schools with high rates of poverty. This pattern occurs because (1) the Chapter 1 formula distributes funds to districts according to their enrollment of students from low-income families and (2) the program bases school eligibility on a school's rate of poverty relative to other schools in the district.

- **Districts generally select schools characterized by high percentages of poor students, judged on local, but not always national, standards. Districts generally select students who are low achievers by both local and national standards.**

The primary reason for these patterns is that districts generally adhere to Chapter 1's school and student selection requirements. Exceptions to these patterns sometimes occur because districts most often select the elementary grades to receive Chapter 1 services. Thus, middle and secondary schools with high poverty rates and the low achievers enrolled in these schools often do not receive Chapter 1 services.

- **Among the nation's elementary schools with very high poverty rates, close to 90 percent receive Chapter 1 services. Unserved elementary schools with very high poverty rates by national**

standards are almost all located in districts with poverty rates above the national midpoint.

The poverty rates of non-Chapter 1 elementary schools in districts with high poverty rates are often higher than those of Chapter 1 elementary schools in districts with low poverty rates. Districts with high poverty rates often select schools with the highest poverty rates by district standards for Chapter 1 services, in order to provide services that are of "sufficient size, scope, and quality." This leaves some schools unserved that have high rates of poverty by national standards but low poverty rates by the standards of their own districts. While these schools sometimes provide other special services from State or local sources, the level of these services is usually lower than that provided by Chapter 1. School selection options can result in either the inclusion or exclusion of schools with high poverty rates by national standards, depending on the district's poverty rate and how the options are used.

- **Many students with very low achievement levels by national standards do not receive Chapter 1 services.**

The fact that many students with low achievement scores do not participate in Chapter 1 results from the interplay of many factors including: the presence of low achievers in unserved schools and grade levels, the availability of other program funding for low achieving students, and decisions to serve only the very lowest achievers within selected schools and grade levels. Decisions to serve only the very lowest achievers, leaving other low achievers unserved, often are made in order to provide an adequate level of services to participating students; mismatches between school needs and available resources also contribute to this pattern. Finally, the use of professional judgment to determine that a student has less need than indicated by a test score can contribute to some low achieving students' nonparticipation in Chapter 1. When the use of teacher judgment is not systematic across schools, as is the case in some districts, some low achievers are not served.

- **A small proportion of Chapter 1 students achieve at levels close to or above the national average.**

The percentage of Chapter 1 students who score close to or above the national average is small relative to the percentage of very low achievers who are not served at all. Districts that receive Chapter 1 funds but enroll few low achievers by national standards sometimes serve students who score close to or above the national average because they are the lowest achievers in these districts. A variety of school and student selection practices also may contribute to this pattern, including local interpretations of the formerly eligible student option, and the use of teacher judgment in student selection. Where districts set their student selection criteria at or near the 50th percentile, the likelihood increases that some students scoring above this level will be served, although this criterion alone does not necessarily result in the provision of services to high achievers. Unsystematic policies and procedures for using teacher judgment in student selection contribute to the presence of higher achieving students in this program as well.

CHAPTER 3

EDUCATIONAL SERVICES PROVIDED TO CHAPTER 1 STUDENTS

This chapter describes the educational services Chapter 1 provides in public and nonpublic schools. The National Assessment's second interim report to Congress summarized available information about the effectiveness of Chapter 1 and concluded that during a school year students receiving Federal compensatory services show larger increases in achievement than comparable students not receiving these services. However, these gains do not move Chapter 1 students substantially toward the achievement levels of their more advantaged peers, nor do the gains persist after students leave the program. In addition, the effects of Chapter 1 programs on students' achievement vary across subject matters, grade levels, types of students served, and localities. The second interim report also summarized previous research on the link between the types of instruction students receive and patterns of achievement. We concluded that more knowledge was necessary about Chapter 1 services and regular services provided to Chapter 1 students before determining which findings about instructional effectiveness were most relevant to those students' achievement patterns.

Through surveys and case studies, the National Assessment investigated several characteristics of instructional services for Chapter 1 students. These included features such as grade levels, subject matter, and instructional settings. We also analyzed how the services conform with current research on elements of effective educational practice, such as instructional time, well-qualified staff, and the like. The Assessment also looked more broadly at the school environments of Chapter 1 students. Finally, we also studied services for private school students.

AN OVERVIEW OF CHAPTER 1 SERVICES

The Legal Framework Affecting Chapter 1 Services

Historically, Congress has generally left decisions regarding the design and implementation of Chapter 1 services in the hands of State and local decisionmakers (Kirst & Jung, 1980). Neither Chapter 1 nor Title I contains any provisions specifying which subjects to offer, when to offer them, or for how long. The legislation only requires that, in designing program services, local officials follow a set of procedures and meet broadly stated goals, for example, that services be of "sufficient, size, scope and quality to give reasonable promise of substantial progress toward meeting" students' needs (Section 556(b)(3)).

Although program design decisions historically have rested with State and local officials, certain Chapter 1 fiscal provisions exert some influence on program design choices. These provisions require Chapter 1 funds to supplement regular State and local funds (rather than substituting for them) and to serve only selected students rather than furnishing general aid. In past years, the application of these provisions resulted in uncertainty about the legality of particular designs for services (NIE, 1977; Winslow, 1979). For example, some district officials were unsure how much time a student could be withdrawn from the regular classroom for Chapter 1 instruction. Conversely, district officials who preferred approaches where Chapter 1 students remained in the regular classroom were unsure how to demonstrate that such instruction was additional to the regular classroom lessons and excluded ineligible students. Furthermore, neither of these approaches has been easily adapted to the organization of instruction in secondary schools (Program Design Study).

Throughout the legislative history of Title I, Congress indicated that Federal law did not impose any particular program strategy. Similarly, the Chapter 1 law states that Chapter 1 services do not have to be provided outside the regular classroom or school program to demonstrate compliance with the supplement, not supplant provision. Nevertheless, State and local concerns about audit violations contribute to school decisionmakers favoring Chapter 1 programs that pull the Chapter 1 student out of the regular classroom for a limited amount of time, since such programs appear to be the simplest and surest way to ensure compliance with Chapter 1's fiscal provisions (Program Design Study).

Chapter 1 also requires districts to make compensatory services available to eligible students attending private schools. This requirement means that the needs of eligible private school students must be accounted for in a decisionmaking process controlled by public schools. Delivering services to school children outside this system presents challenges of location, timing, and equity.

Local Decisionmaking and Chapter 1 Services

In determining what Chapter 1 services to provide and how to distribute program funds to schools, local administrators must meet a few procedural requirements: an assessment of student needs, consultation with parents and teachers, and an annual evaluation of their Chapter 1 program. Otherwise district choice prevails in these decisions, as long as the programs result in supplemental services for those children designated for service.

Districts vary in their decisionmaking process (Resource Allocation and Program Design Studies). Some make decisions centrally, while others delegate most authority to the school level. The degree of formality in the process varies, as do the participants and the factors they consider. Still, there are some common elements. For all districts, the Chapter 1 budget provides a framework for program design decisions. Local administrators design one or more Chapter 1 projects, each characterized by a focus on grade levels, content areas, and sometimes a particular setting such as pullout or in-class arrangements. For example, a district may choose two Chapter 1 projects--a reading program for the primary grades that places aides in the regular classroom, and an English as a Second Language (ESL) program for eligible high schools.

Many local factors contribute to variability in program designs across districts (Program Design Study). The preferences of program managers (e.g., for early intervention or in-class services) are major determinants of program choices. The availability of local resources such as space and skilled staff is also important. State reform initiatives, especially State-mandated tests, can affect Chapter 1 programs (e.g., by encouraging services to the grade levels where testing occurs and coverage of the material that is tested). Finally, for any district, a key determinant of the current program design is the previous year's program design; programs typically undergo only one or two changes each year within a basically stable framework.

Districts' decisions about program design are intertwined with other decisions, particularly those pertaining to the eligibility and selection of schools and students. In other words, most districts balance the goal of serving as many students as possible with that of providing participating students with a level of service that is likely to enhance their achievement.

In the previous chapter, we discussed why the Chapter 1 schools within some districts do not receive a level of funding that is proportionate to their educational needs (Resource Allocation Study). This condition sometimes results in the exclusion of students from Chapter 1 in one school who would be served in another. Different levels of service for Chapter 1 students attending different schools can also result from such mismatches between needs and resources as well as from other factors, such as the design preferences of staff in the schools. Thus, instructional features such as pupil/staff ratios and minutes per day of instruction vary within districts from one school to the next. In the following pages we describe national patterns of service in

Chapter 1 schools and their variability. Our studies indicate that the variability in these patterns often reflects differences within school districts as well as between them.

Grade Levels Served by Chapter 1

Figure 3.1 indicates that Chapter 1 services nationally continue to focus on the elementary grades, particularly grades 1 through 6. These data confirm a trend noted in previous large scale surveys: school districts favor elementary schools over middle/secondary schools[18] in the allocation of Chapter 1 funds (NIE, 1977; Advanced Technology, Inc., 1983). Data on students served also indicate a preference for serving the lower grades (TIERS). For example, 18 percent of all public school students enrolled in pre-kindergarten through grade 6 participate in Chapter 1, whereas roughly only 6 percent of all public school students enrolled in grades 7 through 12 participate in Chapter 1.

This preference for focusing Chapter 1 in the lower grades is largely due to the widely shared conviction that early intervention is the most beneficial and efficient way to assist educationally disadvantaged children (Targeting and Program Design Studies). Most educators in the districts participating in those studies believe that providing compensatory education as early as possible gives underachieving students the best chance to catch up with their peers.

Serving high school students also poses problems (Program Design Study). In several sites, for example, district officials noted that secondary students are reluctant to participate in Chapter 1. Fitting Chapter 1 classes into students' schedules also may be difficult. Moreover, identifying program arrangements that comply with the

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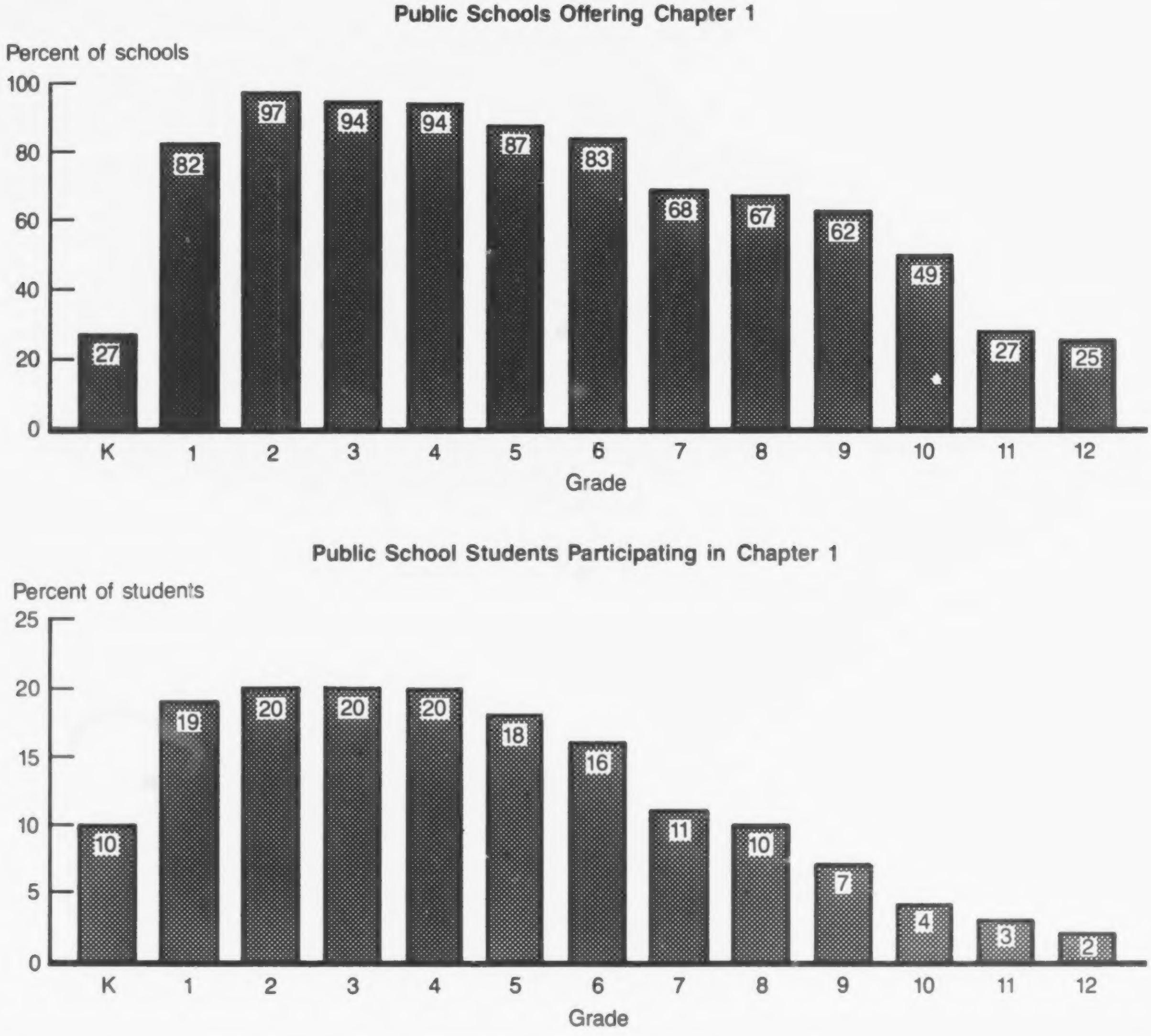
[18] The School Survey defined middle/secondary schools as those in which the majority of grades served are at or above grade 7. However, if grade 12 is served, the school is automatically designated as middle/secondary. Thus, a small number of schools serving grades K-12 are designated as middle/secondary schools.

Figure 3.1

Percent of Public Schools Offering Chapter 1 Services, by Grade, and Percent of Public School Students Participating in Chapter 1, by Grade[1]



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86, A Summary of Chapter 1 Participation and Achievement Information for 1984-85, Gutmann & Henderson (1987), and the Digest of Education Statistics, 1987.

[1] School-level data are for the 1985-86 school year; participant data are for the 1984-85 school year. Nineteen percent of schools offer Chapter 1 to pre-kindergarten students. The percent of Chapter 1 kindergarten students slightly underestimates the true percentage due to inclusion of a small number of pre-kindergarten students in the total kindergarten population, but not in the number of Chapter 1 kindergarten students.

Figure reads: Of all public elementary schools that provide kindergarten, 27 percent offer Chapter 1 services to kindergarten students. Of all public elementary school students enrolled in kindergarten, 10 percent participate in Chapter 1.

supplement, not supplant requirement and conform to the organization of instruction in high schools presents a challenge, as we discuss below in the section on instructional settings.

Subjects Offered

The subjects covered by Chapter 1 have also remained fairly stable over time. Figure 3.2 presents information on the proportions of public schools offering various subjects and combinations of subjects as part of Chapter 1 services. Chapter 1 schools almost always offer reading instruction, and mathematics instruction is also prevalent. English as a second language (ESL) is offered in only 13 percent of elementary schools and 8 percent of secondary schools with Chapter 1 programs. Most schools offer a combination of subjects--usually reading and mathematics--as part of their Chapter 1 services, rather than concentrating Chapter 1 resources only on one subject. From the perspective of student participation, however, substantially more students receive Chapter 1 reading than mathematics instruction. Data from TIERS indicate that 74 percent of Chapter 1 students received reading instruction, while only 46 percent received mathematics instruction in 1984-85.

The Setting in Which Services are Provided

A somewhat controversial feature of Chapter 1 programs is the setting in which Chapter 1 services are provided. To remove confusion about how various configurations of services meet the fiscal provisions of the law, ED has identified several settings that Chapter 1 programs can use. These are described and illustrated in Table 3.1[19] Although ED has articulated several options, the issue of setting generally reduces to whether in-class or pullout approaches are educationally superior

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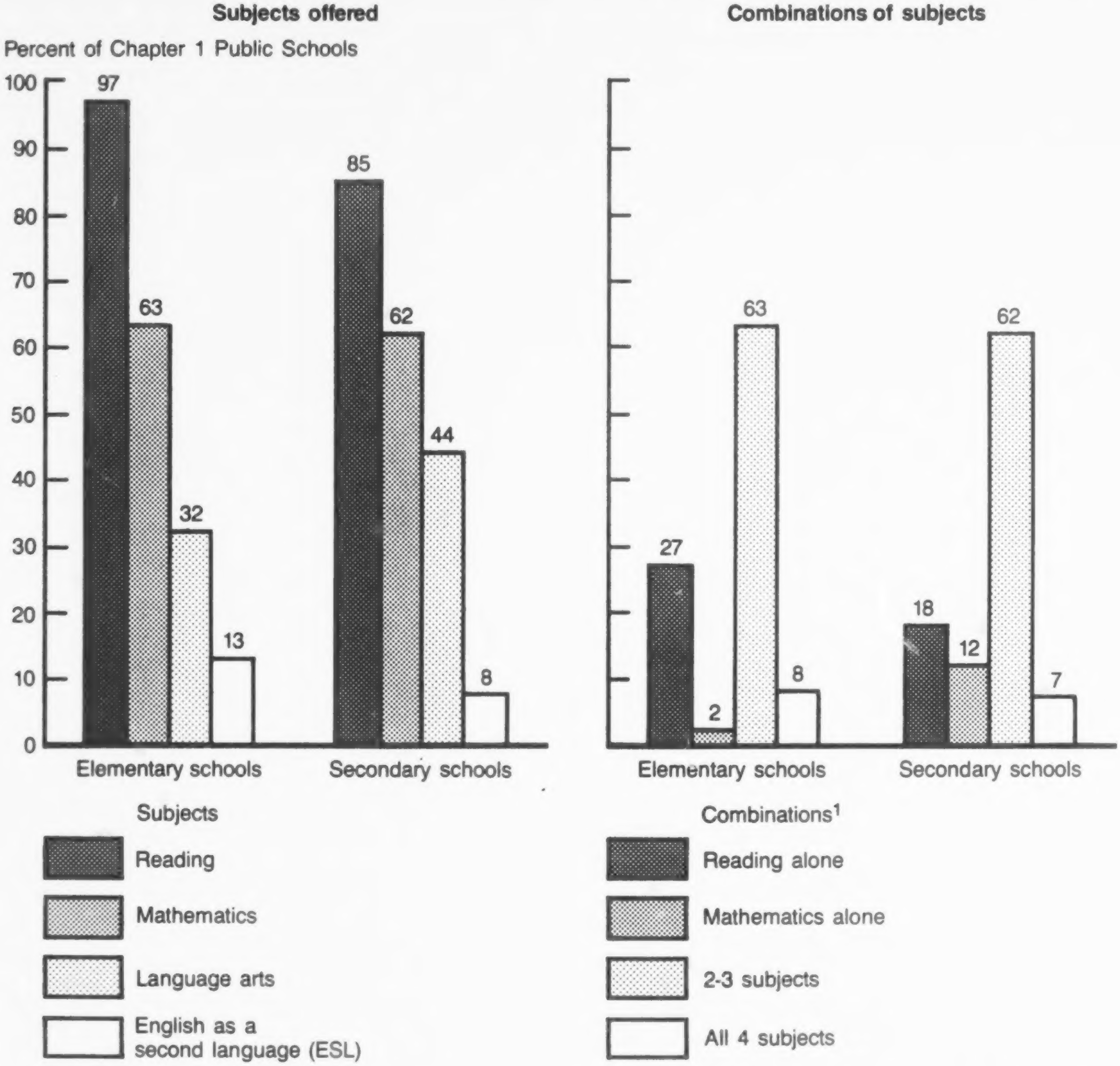
[19] These options are based on those described in the June 1983 Nonregulatory Guidance (NRG), in which ED responded to concerns about the implications of the supplement, not supplant and general aid provisions for local decisions about services. The options in the NRG are similar to those in the 1981 Title I regulations.

Figure 3.2

Subjects and Combinations of Subjects Offered as Part of Chapter 1 Services in Public Schools, as Reported by School Principals, 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] Fewer than one percent of public elementary or secondary schools offer only language arts or only ESL.

Figure reads: Of all Chapter 1 elementary schools, 97 percent offer reading. Only 27 percent offer reading alone.

Table 3.1

Chapter 1 Instructional Settings: Setting Characteristics and Practical Examples

Setting Characteristics	Examples[1]
In-class arrangements include Chapter 1 instructional services that are provided to children in the same classroom and at the same time in which they would receive non-Chapter 1 instructional services if they were not participating in Chapter 1.	A Chapter 1 teacher or aide works with either individual Chapter 1 students or small groups of Chapter 1 students for 30 minutes every day in the same classroom where non-Chapter 1 students receive reading instruction. The Chapter 1 aide or teacher may work with students in the back of the room or off to the side.
Pullout arrangements include instructional services that are provided to Chapter 1 students in a different setting or at a different time than would be the case if those students were not participating in Chapter 1. By definition, "limited" pullouts last less than 25 percent of the time that non-Chapter 1 students spend in the classroom from which Chapter 1 students are pulled out, whereas "extended" pullouts last 25 percent of the time or longer and must be supplemented in the same manner as replacement programs.	A Chapter 1 teacher with or without a Chapter 1 aide, provides instruction in a resource room, media center or computer lab to students who have been "pulled out" of non-Chapter 1 instruction. The duration of pullout instruction may be anywhere from 15 minutes to an hour or more.
Like pullout programs, **replacement**[2] programs provide instructional services to Chapter 1 students in a different setting, or at a different time than would be the case if those students were not participating in Chapter 1. The name for this type of delivery arrangement comes from the fact that it replaces part or all of students' regular classroom instruction; in order to do this a district must contribute sufficient local resources to the program.	A Chapter 1 teacher, or a regular teacher accompanied by a Chapter 1 aide provides instruction designed to meet Chapter 1 students' particular educational needs through instructional services in self-contained classrooms. In secondary grades, replacement programs often last the equivalent of one class period (during which time the student misses non-Chapter 1 instruction in the same subject), but some districts have day-long replacement programs for students in the primary grades (particularly 1st grade).
Add-on programs involve services that are provided to Chapter 1 students at a time in which they would not otherwise be receiving instruction, such as before or after school hours, during vacations or weekends, or during other noninstructional time.	Chapter 1 students attend a regular kindergarten in the morning and a Chapter 1 "extended day" kindergarten for 2 hours in the afternoon; or Chapter 1 students attend a summer school program; or A Chapter 1 teacher or aide remains after school to help Chapter 1 students with homework.
The **schoolwide projects** provisions [of the 1983 Technical Amendments, P.L. 98-211] are intended to enable schools with high percentages of disadvantaged students to provide more effective remedial programs by serving all of their students, not just those eligible for Chapter 1. Any school serving an attendance area where at least 75 percent of the students are from low-income families may use Chapter 1 funds for a schoolwide project — that is, to upgrade the entire educational program of the school.	Chapter 1 and district matching funds are used to reduce the student/teacher ratio in a school to one lower than that of other schools in the district, and to provide students who fail a 5th grade minimum competency test with remedial instruction.

Source: The Program Design Study conducted for the Chapter 1 National Assessment, 1985-86.

[1] Practical examples specifying use of teachers and/or aides reflect situations that are most prevalent according to National Assessment research.

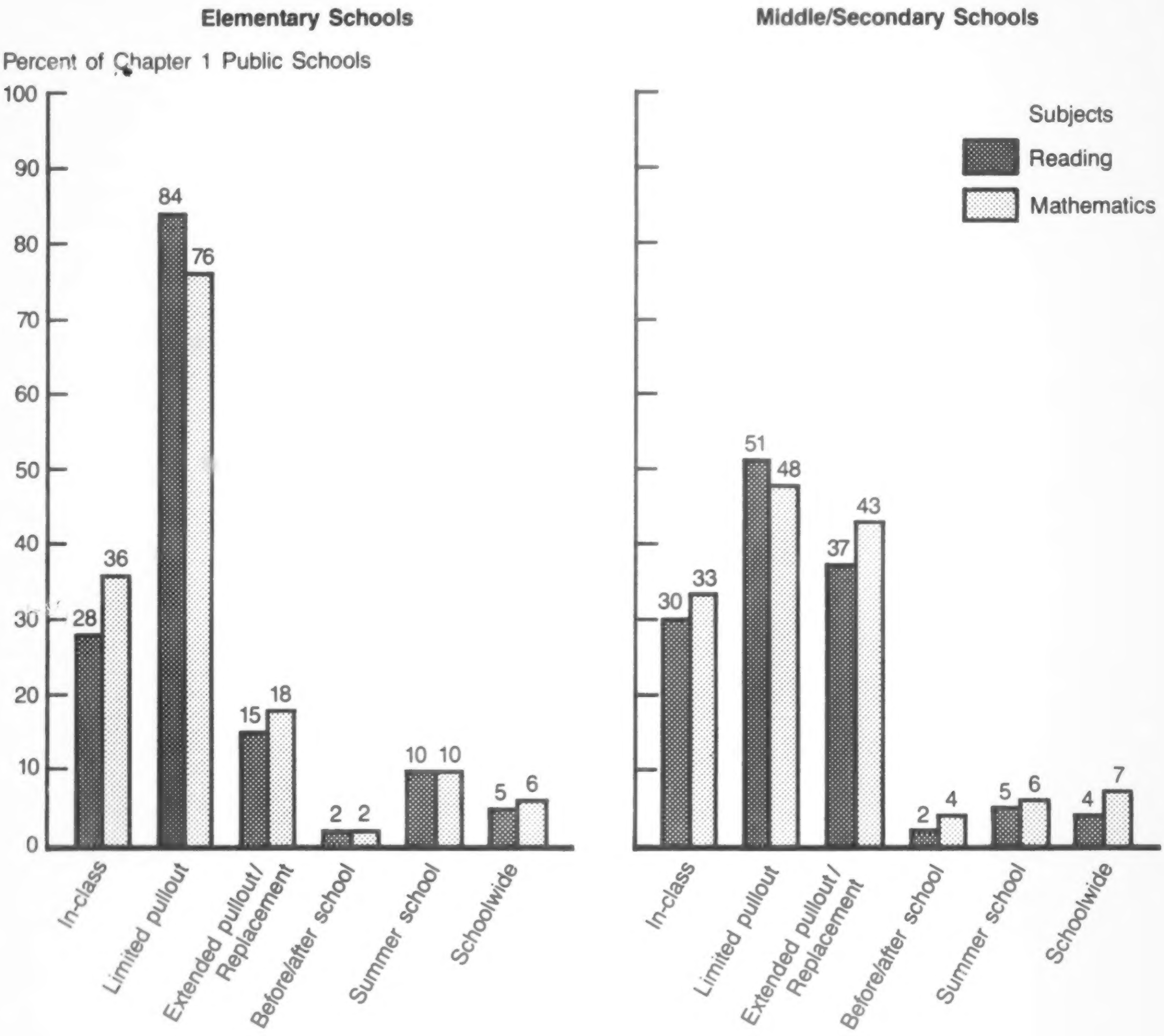
[2] Use of a replacement setting requires that Chapter 1 services are provided for a period that exceeds 25 percent of time — computed on a per day, per month or per year basis — that a participating child would, in the absence of Chapter 1 funds, spend receiving instructional services from teachers who are paid with non-Chapter 1 funds.

and the extent to which fiscal requirements favor pullouts. Previous research led to concerns that a pullout approach resulted in students missing their regular instruction (NIE, 1977; Brown, 1982; Walberg, 1984). In addition, critics challenged the pullout model for its potential to disrupt a student's educational program, either increasing the time a student misses from regular classroom instruction (due to increased transit time) or impeding coordination between instruction in the two settings (Kimbrough & Hill, 1981; Johnston, Allington, & Afflerbach, 1985). Also, the pullout model was criticized for stigmatizing the Chapter 1 children who leave the regular classroom by labelling them as less able than those who remain. On the surface, in-class strategies appeared to overcome many of these problems. However, more recent analysis indicates that disruption, stigmatization, and a lack of coordination can occur with either approach, although the potential for problems such as infrequent staff contact may be greater with use of pullouts, which physically separate teachers and students from the regular classroom (Archambault, 1986).

In 1985-86 most districts (89 percent) delivered at least some Chapter 1 instruction in a limited pullout setting, and 12 percent used an extended pullout setting (District Survey). Nearly two-fifths (37 percent) of districts provided Chapter 1 instruction in the regular classroom, and few (about 7 percent) chose program designs that added time to a student's regular day or used the schoolwide projects option. As Figure 3.3 indicates, public schools follow this general pattern for both Chapter 1 reading and Chapter 1 mathematics instruction. The limited pullout setting is most prevalent, with 84 and 51 percent of principals in elementary and middle/secondary schools, respectively, reporting that they use it for reading instruction, and 76 and 48 percent of principals in elementary and middle/secondary schools, respectively, for math instruction. In-class and extended pullout settings are next in prevalence.

Figure 3.3

Settings in Which Chapter 1 Reading and Mathematics are Provided by Public Schools, as Reported by School Principals, 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: Of all public elementary schools that offer Chapter 1 reading instruction, principals in 28 percent report use of an in-class setting to teach Chapter 1 reading.

Many districts have retained their pullout programs since the days of Title I (Program Design Study). The continued use of pullout settings is attributable to a combination of factors: a perception that pullouts comply with the supplement, not supplant and general aid requirements of the law; a judgment that they fit easily into the existing structure and staff working relationships in schools; and a belief that they provide a way to teach disadvantaged students effectively.

However, Figure 3.3 also reveals that the instructional settings used in middle/secondary schools differ somewhat from those used in elementary schools. Middle/secondary schools are less likely to rely on a limited pullout setting for Chapter 1 instruction and more likely to select either an extended pullout or replacement option.[20]

Choosing a model for middle/secondary school services poses problems for local decisionmakers. ED requires districts to supplement Chapter 1 programs with additional State and local funds if students miss more than 25 percent of instruction from their regular teachers. An example furnished in the December 1986 NRG shows this calculation being performed on a per class basis for secondary schools. According to this example, if a student misses more than 25 percent of third period English to receive Chapter 1, the school must provide additional resources to compensate for this loss. Local educators may be concerned that pullouts for 25 percent or less of class time are incompatible with the time periods that structure the school day in middle/secondary schools. This may be one reason that extended pullout and replacement models are chosen from middle/secondary schools, even though these models require a contribution of State or local funds.

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[20] However, precise comparisons between elementary and middle/secondary schools are difficult because we suspect that many principals in middle/secondary schools were confused about which of ED's options best described their Chapter 1 programs. For example, when Chapter 1 instruction is provided to a class, it may be perceived as an "in-class" program even though it replaces some other activity. Principals may also be uncertain about whether the time criterion distinguishing limited from extended pullouts (25 percent) applies to a particular subject or the entire school day.

While considerable attention has centered on the setting in which Chapter 1 services are provided, especially the relative merits of pullout and in-class approaches, several researchers now question this focus (Archambault, 1986). Rather, they suggest, policymakers should attend to variables that are more likely to affect academic achievement gains, such as class size and the amount of time spent on academic tasks. Past studies indicate that differences in academic achievement cannot be traced unambiguously to the use of any particular instructional setting (Archambault, 1986). Differences among programs on such variables as instructional group size and the amount of time devoted to instruction are unrelated to the setting adopted, at least in the Whole School Day Study sample. Rather, schools at the same grade level implement the same design differently, creating significant variations in instructional practices used within the same setting.

EFFECTIVE EDUCATIONAL PRACTICES IN CHAPTER 1 PROGRAMS

As part of the National Assessment of Chapter 1, prominent researchers reviewed current literature on effective educational practices (Williams, Richmond, & Mason, 1986). They identified several important features that provide a framework for reviewing current Chapter 1 services and, in turn, assessing their likely quality.[21] These effective practices include the use of: (1) very small instructional groups; (2) increased instructional time; (3) well-qualified instructors; (4) direct instruction; and (5) lessons and materials involving higher order academic skills. Each of these features has been the subject of considerable examination, and most have triggered debate about their contributions to improving the outcomes of instruction. Nevertheless, available evidence strongly suggests that at least the first four features are significant components of effective instruction for disadvantaged students, and the fifth, an emphasis on higher order skills, has some support among researchers.

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[21] Rather than examining particular instructional features, some researchers have identified whole programs that appear to be effective for disadvantaged students. The strengths and weaknesses of this approach are discussed in our second interim report. Recent reviews of effective programs have been conducted by Slavin and Madden (1987); Madden and Slavin (1987); and Karweit (1987).

In the following sections we describe Chapter 1 programs in terms of these features, briefly reviewing the evidence indicating their importance to effective instruction. Since reading and mathematics instruction dominate the Chapter 1 curriculum, we restrict our discussion to these subjects. In assessing the overall quality of Chapter 1 services, however, what matters most is the combined impact of the various features. Although it is tempting to think that changing one instructional dimension will achieve the desired goal of improving student performance, practical experience and research suggest otherwise.[22] For example, increasing the time students are exposed to Chapter 1 reading will produce little improvement in performance if the size of the group is so large that students do not have the benefit of a teacher's attention or if the lessons fail to engage the students. Therefore, readers need to consider the range of characteristics before reaching conclusions about the quality of Chapter 1 services.

Instructional Group Size

Past research demonstrates that student achievement increases when learning activities take place in small instructional groups (Cahen, Filby, McCutcheon, & Kyle, 1983). For example, a meta-analysis of studies of class size presented a curve that traced the effects on learning of reductions in group size[23] (Glass, Cahen, Smith, & Filby, 1982). This curve suggested that reductions in group size had minimal effects until instructional groups reached a size of about 10 students, but that reductions below this number tended to have larger effects on achievement. Several researchers questioned the conclusiveness of these findings (Hanushek, 1986; Hedges & Stock, 1983; Slavin, 1984). However, a recent review of the literature on the relationship of class size to achievement states that while studies to date fail to indicate a positive effect of smaller classes on achievement of students in the upper grades (9 through 12), they indicate a slight positive effect in grades 4 through 8 and a stronger positive effect on learning of students in grades K through 3 (Robinson & Wittebols, 1986). Furthermore, a review of relevant literature commissioned by the National Assessment noted that, in spite of disagreement over the effects of smaller instructional groups on achievement of the general school age population, a consensus exists that very small instructional groups are efficacious with low-ability or disadvantaged students (Cooper, 1986).

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[22] The Sustaining Effects Study examined the relationship between classroom instructional practices and student achievement and concluded that the amount of compensatory education would not by itself close the achievement gap between educationally disadvantaged students and their non-disadvantaged peers. These researchers noted that more information was needed about components of compensatory education, such as the instructional environment and practices, in order to determine which were most important.

Table 3.2 shows that Chapter 1 students in elementary schools are typically taught in small groups of about five pupils, well below the size suggested by Glass et al. for achieving effects on performance.[24] In middle/secondary schools, the Chapter 1 group size drops to four for reading and three for mathematics. While these numbers represent the median Chapter 1 instructional group, it is also important to consider the variation surrounding this statistic.

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[23] The meta-analysis conducted by Glass et al. (1982) used the term "class size" but included groups as small as one student. Given this, we use the term "group size."

[24] Throughout this chapter the median is the descriptive statistic used most frequently. The median is the number that divides the cases in half; that is, there are the same number of cases with smaller values than the median as there are with larger values. The median was chosen over other measures of central tendency, such as the mean (i.e., average), because it is less sensitive to extreme cases in one direction or the other and is therefore generally preferable when extreme cases exist. We use the term "typical" as an abbreviated way to refer to the median case.

Table 3.2

Instructional Time and Group Size for Chapter 1 Reading and Mathematics in Public Schools, as Reported by Chapter 1 Teachers, 1985-86

Instructional Time and Group Size by Subject	Chapter 1 Instruction in Public Elementary Schools		Chapter 1 Instruction in Public Middle/Secondary Schools	
	Median	Interquartile Range[1]	Median	Interquartile Range[1]
Reading				
Size of instructional group	5	3 to 7	4	3 to 6
Days per week	5	5 to 5	5	5 to 5
Minutes per day	35	30 to 50	45	40 to 50
Mathematics				
Size of instructional group	5	3 to 8	3	2 to 8
Days per week	5	4 to 5	5	4 to 5
Minutes per day	30	30 to 50	45	40 to 55

N = 934 (sample of Chapter 1 teachers in public schools). Table values based on weighted data.

Source: Survey of Schools conducted for Chapter 1 National Assessment, 1985-86.

[1] Figures are the values at the first and third quartiles and represent the amount of variation around the median. For example, the interquartile values of 30 to 50 minutes per day of reading mean that approximately half of all public elementary schools provide Chapter 1 reading for an amount of time in between these values.

Table reads: According to Chapter 1 teachers in public elementary schools, the median number of students in an instructional group during Chapter 1 reading is 5.

80

One way of measuring this variability is through the "interquartile range," displayed in the second and fourth columns of Table 3.2. The interquartile range shows variation around the median by presenting the values at the first and third quartiles. As shown in the first row of the table, for example, the interquartile range for reading instructional groups in public elementary schools is three to seven. This means that approximately half of instructional groups have three to seven students, while one-fourth are groups of less than three students and one-fourth are groups of more than seven. The interquartile range shows that while the size of Chapter 1 reading and mathematics groups varies, the large majority of Chapter 1 teachers provide instruction in groups well within the range viewed as effective.

The size of Chapter 1 instructional groups differs notably from that of regular classrooms and subgroups within classrooms. Elementary classroom teachers are typically responsible for a class of 25 in the regular program (School Survey). Although almost 90 percent of the teachers surveyed divide their classes into subgroups of eight students to teach reading, in most cases these teachers do not have the assistance of an aide. Thus, while instructing a small reading group they remain responsible for managing the rest of the class. In contrast, even when Chapter 1 teachers form subgroups within a class of Chapter 1 students (as is common when schools use pullouts), the whole class contains about 10 students, and the teacher often has an aide who works with pupils in a subgroup. Therefore, in comparison to their regular instruction, Chapter 1 students' remedial instruction in reading allows much greater attention from the instructor. More favorable group sizes prevail to an even greater extent in Chapter 1 mathematics, because about half of regular classroom teachers teach mathematics without forming subgroups. When they do form subgroups for mathematics instruction, the typical size of the instructional group is 10 compared with typical Chapter 1 groups of five at the elementary level and three at the middle/secondary level.

Increased Instructional Time

Educational researchers have found a consistent relationship between the amount of time students spend on academic tasks and their subsequent performance on achievement tests (Walberg & Frederick, 1983). As noted in our second report to Congress, research consistently has confirmed the common sense notion that the more opportunities students have to learn, the more they actually learn. Research also has consistently shown that the time available to learn a subject, while necessary for successful learning, is not in itself sufficient. To yield the desired gains in learning, students must be engaged by their lessons, and their lessons must be relevant to the skills required on the part of the student (Leinhardt, Bickel, & Pallay, 1982; Fisher & Berliner, 1985; Peterson, 1986). Nevertheless, the amount of time a student has available to learn is an important precondition for learning.

To estimate how Chapter 1 contributes to available learning time in reading or mathematics, it is necessary to consider at least three elements: (1) the amount of time Chapter 1 instruction is provided, (2) the amount of instruction in the same subject that students receive as part of the regular school program, and (3) the instructional time that students miss in the regular class as a result of their participation in Chapter 1.

Chapter 1 Instructional Time

The survey data presented in Table 3.2 indicate that Chapter 1 students in elementary schools tend to receive their reading or mathematics services for five days per week and approximately 35 minutes per day. In middle/secondary schools, the time students typically spend each day in Chapter 1 increases to 45 minutes per day, possibly due to the length of structured class periods in these schools. The interquartile ranges indicate that while there is little variation in the days per week of Chapter 1 instruction, the number of minutes per day, especially at the elementary level, varies considerably. The varying amounts of time Chapter 1 students in different schools spend in Chapter 1 reading, for example, was apparent in the Whole School Day Study where the range reached from 20 minutes per day at one school to 133 minutes per day at another.[25]

The duration of Chapter 1 instruction is significant in part because of its relationship to the positive effects of the small group sizes that characterize Chapter 1 services. Glass et al. (1982) found that reductions in group size had larger effects when reductions were sustained over longer periods of time, for example, 100 hours or more. The benefit of smaller classes for fewer than 100 hours of instruction is not as substantial, although it does exist. The 35 minutes of instruction that students typically receive in Chapter 1 reading amounts to slightly more than 100 hours of instruction in the average 36-week school year. However, because this is the median value and individual students vary in how much time they spend in Chapter 1 instruction, some students are more likely than others to receive enough Chapter 1 instruction potentially to improve their achievement.

The Regular Program and Missed Instructional Time

The typical elementary student receives reading and mathematics instruction five days per week, with reading usually amounting to an hour per day and mathematics consuming 50 minutes (School Survey). Students appear to spend another 40 to 50 minutes each day working on seatwork assignments, usually related to the reading and mathematics lessons for the day. However, there is considerable variation among schools in the actual amount of time students spend in regular reading and mathematics instruction.

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[25] A program that offers as much as 133 minutes of reading instruction is likely to be an extended pullout or replacement program, requiring a contribution of local resources.

Because most schools operate their Chapter 1 programs during the regular school schedule, they make a tradeoff between activities in the regular program and Chapter 1 instruction. A determination of whether Chapter 1 actually increases the total amount of time disadvantaged students are exposed to a subject requires accounting for what students miss when they receive Chapter 1 instruction.

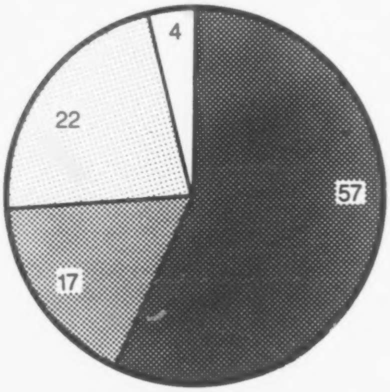
The majority of regular teachers of elementary students state that their Chapter 1 students miss other reading activities when they receive Chapter 1 reading lessons (Figure 3.4). Students are less likely to miss other mathematics activities as a consequence of their participation in Chapter 1 mathematics. However, researchers for the Whole School Day Study note that the typical elementary school day consists of several sessions of both reading and mathematics. The description of "Alicia's day" (Table 3.3) illustrates how one Chapter 1 elementary student's day was punctuated by several different sessions of reading and mathematics, some involving teacher-directed instruction and others emphasizing independent seatwork. In the classrooms visited for the Whole School Day Study, teachers usually attempted to schedule their students' Chapter 1 lessons for times when other students were working on seatwork assignments. For example, Table 3.3 indicates that Alicia participated in one session of Chapter 1 reading while other students corrected their spelling tests.

Although teachers often schedule students to miss seatwork instead of other activities during the regular school day, the fact remains that Chapter 1 instruction usually replaces some learning activities. For the typical Chapter 1 student, the 35 minutes spent in Chapter 1 reading do not translate into an additional 35 minutes of opportunity to learn reading.

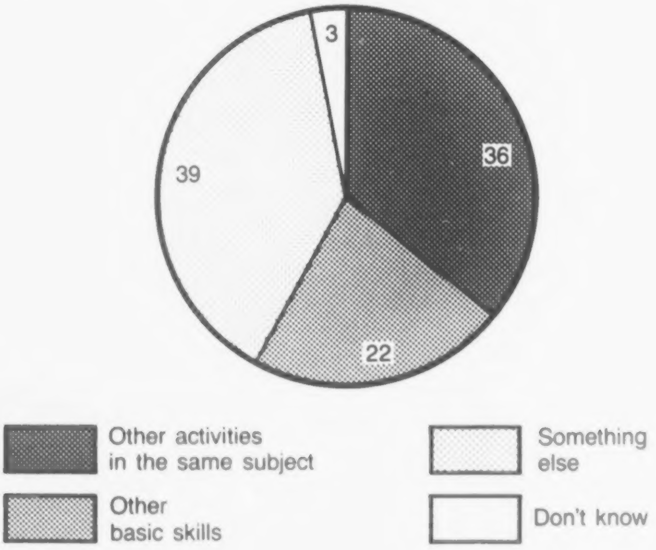
Figure 3.4

Activities Missed When Public Elementary Students Receive Chapter 1 Reading and Mathematics Services, as Reported by Classroom Teachers, 1985-86

Activities Missed During Chapter 1 Reading
(percent of teachers reporting)



Activities Missed During Chapter 1 Mathematics
(percent of teachers reporting)



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

Figure reads: Fifty-seven percent of elementary school classroom teachers indicate that when their students receive Chapter 1 reading, these students miss other reading activities.

Table 3.3

Alicia's Day: The Day of An Elementary School Chapter 1 Participant

Alicia is a second grade student. She participates in Chapter 1 reading and math.

8:25 — Reading/language arts instruction began. The classroom teacher worked with Alicia's reading group first. She introduced a story about kittens. The students read silently, then aloud, a page at a time. The teacher asked questions about each page. Alicia had a reading turn and answered questions. Next, the teacher assigned the students to write a story about kittens. She clarified workbook instructions on a sentence sequencing assignment. She introduced the short [u] vowel (as in sun and run), assigned a workbook page on this, and assigned a worksheet on the short [a] vowel (as in cat). The students moved back to their desks. Alicia sat down and immediately opened her workbook. She was engaged, reading aloud to herself as she worked.

9:05 — Alicia moved into her Chapter 1 reading group for 14 minutes. She sat at the listening center with earphones on. Alicia listened to a tape that focused on words with the sounds [sh], [ch], [gh], and [ph]. She was inattentive. She tapped other students' earphones with her pencil and took her own earphones off, thereby missing the directions for correcting her work.

9:24 — The students had recess (9 minutes). A few minutes later, the teacher directed homeroom activities.

9:43 — During a reading/language arts session, the teacher gave the students their weekly spelling test (6 minutes).

9:51 — Alicia moved into another Chapter 1 reading session. The aide showed Alicia flashcards with words and phrases. Alicia had difficulty reading some of them. Other students corrected their spelling tests.

10:10 — Alicia moved back into regular reading/language arts. The teacher reviewed past worksheets on capitalization and classifying nouns into types. Alicia had a turn to participate. A student collected the papers. Recess followed.

10:48 — A math lesson began. The teacher introduced exercises on two-digit addition and promised a math game after the students finished. Alicia completed the written exercises. At 11:12 a Chapter 1 math session began. The aide worked with Alicia individually, giving her feedback on the exercises she had done. The aide also gave her additional exercises. After a few minutes, three other students joined the aide and Alicia to have their papers corrected. At 11:18 the regular math lesson continued. The teacher told Alicia to find a partner to play a game. The two students took turns rolling dice with the object of reaching 100 first.

11:28 — The reading/language arts session consisted of getting new reading books. The teacher called the students by table to return their old books and pick up new ones. After this the students took a 44-minute lunch break.

12:21 — Alicia had another reading/language arts session. The students read silently.

12:31 — The aide prepared materials for math work using computers. Alicia worked with two other students (at their request) at one computer. They were engaged playing an addition game with three and one-digit numbers. Other students were in the language lab and media center.

1:00 — In the library, the students learned about using card catalogs and selecting books. At 1:40 the students left for the day.

Observer's comment:

Alicia was 'on task" during most of her classes. She received help from the aide during both Chapter 1 reading and math and occasionally worked with other students. Alicia was quite enthusiastic about some of her classes.

Source: The Whole School Day Study conducted for the Chapter 1 National Assessment, 1985-86.

Estimating the net increase in reading and mathematics instructional time for Chapter 1 elementary students is difficult, however. Some rough estimates with limited generalizability are available from the Whole School Day Study. These researchers estimated that Chapter 1 adds approximately 10 to 15 minutes per day, or a 15 to 25 percent increment over and above the 60 minutes students typically receive reading instruction from their regular teacher.[26]

The issue of missed regular instruction differs somewhat for middle/secondary students, who appear less likely than elementary students to miss academic subjects as a consequence of their participation in Chapter 1 services. According to the School Survey, 42 percent of Chapter 1 middle/secondary teachers report that participating students miss some academic subject when they are in Chapter 1. However, a majority of teachers indicate that students receive Chapter 1 instruction during study halls, in free periods, in place of nonacademic subjects, or before or after school. For example, Table 3.4 describes the school day of Rich, a 10th grade Chapter 1 student observed as part of the Whole School Day Study. Rich participates in five regular academic subjects (science, language arts, mathematics, social studies, and computer science) in addition to Chapter 1 reading, which he takes instead of a free period or study hall.

Several critics have voiced concern about the time students lose as they move from the regular class to the Chapter 1 class, or even within the regular class when an in-class approach is used (Archambault, 1986; Kimbrough & Hill, 1981). Our data indicate that disruptions caused by Chapter 1 services do not appear to be greater than other disruptions caused by students' moving around or out of the regular classroom

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[26] These findings are consistent with results from earlier studies of Title I although few have been able to quantify the net gain in instructional time once substitution effects were taken into account. See, for example, Coulson, Ozenne, Hanes, Bradford, Doherty, Duck, & Hemenway, 1977; Wang, Hoepfner, Zagorski, Hemenway, Brown, & Bear, 1978; Archambault & St. Pierre, 1980; Kimbrough & Hill, 1981; Lignon & Doss, 1982; Carter, 1984; and Allington & Johnston, 1986.

Table 3.4

Rich's Day: The Day of A Secondary School Chapter 1 Participant

Rich is a tenth grade student. He participates in Chapter 1 reading only.

7:45 — A substitute teacher directed homeroom activities and prepared for science.

7:59 — The substitute teacher began science by showing a video about the human heart and later had the students write answers to a question. Rich wrote quickly and passed in his paper. He left for his next class.

8:53 — Reading/language arts began in another classroom. The teacher gave the students a brief pop quiz on types of tests (subjective, objective). The teacher then talked about test types, test-taking strategies, and a variety of other subjects during the remainder of the period. Rich and his classmates sat quietly. At 9:35 Rich left for math.

9:40 — Rich entered his math classroom and sat down. The teacher lectured on graphing functions and formulas. Rich wrote a personal letter and didn't look up. Most of the other students participated by answering the teacher's questions. About twenty minutes into the class Rich looked up and began to copy formulas from the board. The teacher passed out a ditto on algebraic equations. As the teacher worked through two problems, Rich sat quietly. The other students followed along and participated in solving the problems. Rich began the first problem incorrectly, then copied the answer from the board. The teacher asked whether the students had any questions. Rich continued to sit quietly.

10:30 — In Chapter 1 reading, the teacher took attendance. She talked about the book *Roots* that the group was reading. At 10:40 the teacher asked a question about the previous day's reading. Students, including Rich, called out answers. The class read round robin. Rich followed along as other students read. The teacher corrected oral reading and periodically asked comprehension questions. Rich responded to several questions. He didn't take a turn reading. Later, in order to finish the chapter, the teacher read to the students.

11:15 to 11:50 — Rich had lunch.

11:55 — Social studies began. The teacher lectured on the Progressive Era in United States history and asked a few questions. The teacher gave a written assignment, and Rich worked on it. Later the teacher reviewed material for a test. Rich didn't have a turn to answer questions during either discussion.

12:45 — Computer lab began. During the class Rich was tested on introductory word processing using Wordstar. He and nine other students sat by a computer terminal. Rich was unable to execute any commands the teacher gave. At 1:05 the teacher gave Rich the word processing documentation to review. Rich read the documentation, corrected his notes, and corrected the written computer test he had failed the week before. Rich also worked on study questions for the next computer lesson until the bell rang.

1:30 — Rich left for physical education class and the observation ended.

Observer's Comment:

Rich was engaged during Chapter 1 reading and received positive feedback from the teacher. There was no opportunity to participate during science and language arts, and very little opportunity during social studies. Rich seemed motivated while studying in computer lab.

Source: The Whole School Day Study conducted for the Chapter 1 National Assessment, 1985-86.

for other reasons (Whole School Day Study). Researchers observing different Chapter 1 students throughout their school day reported that transition times for pullout programs average between three and five minutes, or about one or two minutes longer than in-class transitions. Elementary school students seem quite accustomed to the movement and regrouping of students. For example, Alicia's day (Table 3.3), which featured Chapter 1 services within the regular classroom, included several transitions as the class regrouped for different activities or visited the library.

In summary, Chapter 1 reading and mathematics instruction typically occurs for 35 minutes, five days a week. Evidence suggests that Chapter 1 students receive more total instructional time in these subjects than they would without Chapter 1, but less than the sum of regular and Chapter 1 minutes. Elementary teachers attempt to have Chapter 1 instruction scheduled during time that students would otherwise devote to seatwork learning. Almost half of middle/secondary school teachers report that Chapter 1 instruction takes the place of other academic subjects. However, the instructional time missed from the regular program and devoted to Chapter 1 needs to be viewed qualitatively as well as quantitatively; it is not merely time that influences learning, but rather the quality of that time. Thus, we turn to the issues of the instructor qualifications, the teaching methods, and content found in Chapter 1 classes.

Use of Qualified Instructors

The proposition that the effectiveness of compensatory education is dependent on the qualifications and skills of those who teach disadvantaged students is almost self-evident. Yet, while consensus exists that skilled instructors contribute to the overall effectiveness of Chapter 1 services, less consensus exists about how to measure the skills of instructors. In this section, we address three aspects of this issue: whether Chapter 1 teachers are at least as qualified in their education and experience as regular teachers, the extent to which Chapter 1 programs rely on aides for instruction, and whether research on the effectiveness of aides supports this reliance.

Earlier research on Title I found that about two-thirds of Title I instruction was provided by instructional specialists, i.e., teachers with special credentials to teach remedial programs (Archambault & St. Pierre, 1980). Other research indicated that these teachers had a higher level of educational attainment than regular classroom teachers yet fewer years of experience in teaching[27] (Coulson, et. al., 1977; Vanecko, Ames, & Archambault, 1980; Carter, 1984). Allington (1986) notes that, due to their expertise in a specific area, these teacher specialists can differ from regular teachers in ways that positively affect the quality of their teaching. For example, experts differ from non-experts in terms of the extent and structure of their knowledge, as well as in the flexible use of their knowledge (Chi, Glaser, & Rees, 1982). These differences may translate into variation in use of teaching materials and techniques.

Almost all elementary Chapter 1 teachers hold at least a bachelors degree and over one third hold a masters degree, a pattern closely paralleled by regular teachers (Figure 3.5). In addition, both Chapter 1 and regular elementary teachers have 14 years of teaching experience, on average. Furthermore, 69 percent of Chapter 1 teachers report holding a specialist certificate in reading, thus confirming earlier findings that most Chapter 1 teachers are specialists. In comparison, only 28 percent of regular classroom teachers possess such certificates.

Many Chapter 1 programs rely on the services of aides who either assist teachers or work independently with Chapter 1 students. Nationwide, the program employed 73,600 full-time equivalent teachers and 64,500 aides in 1984-85 (TIERS). The Program

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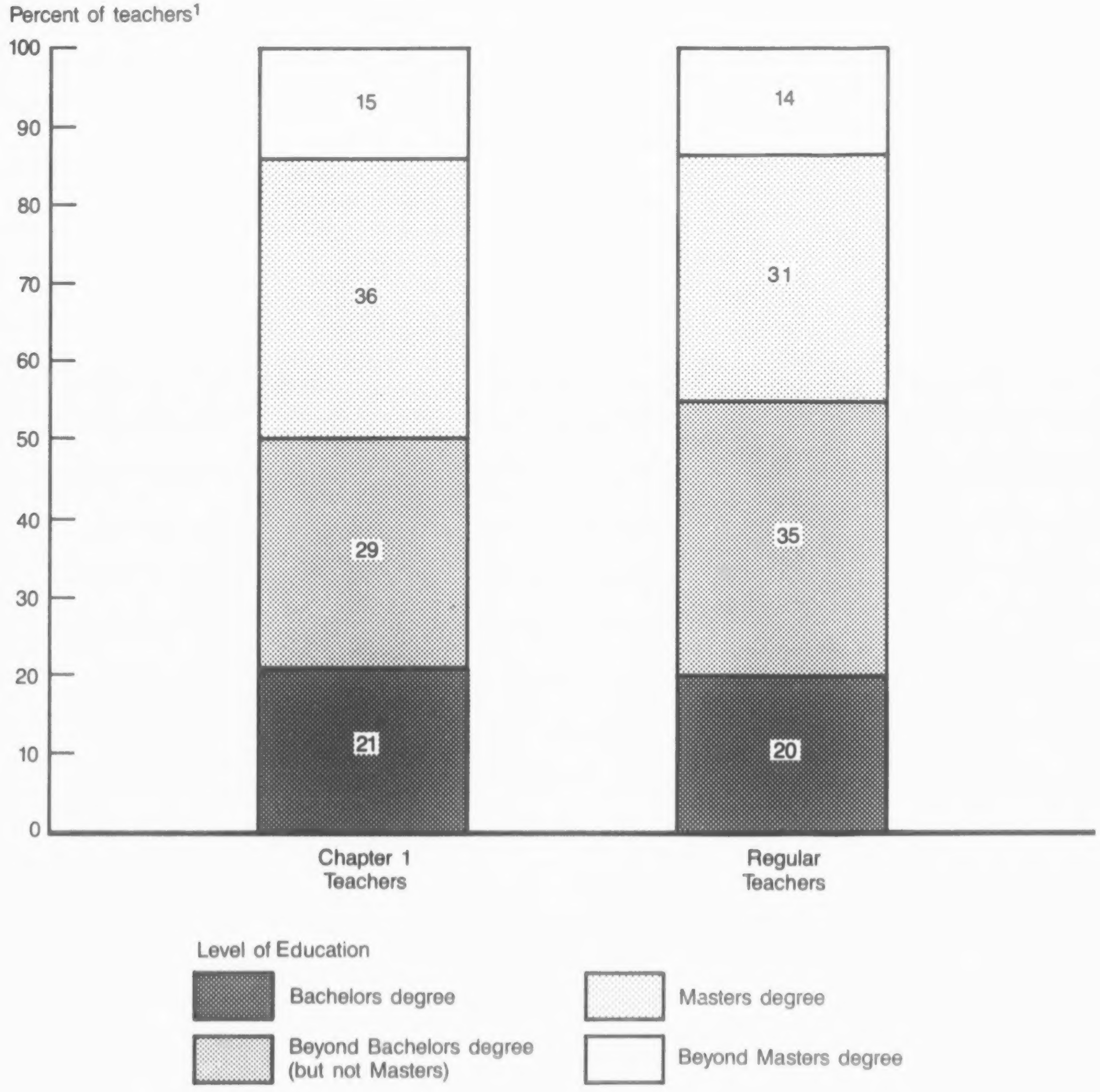
[27] A review by Hanushek (1986) of research on the effects of teacher experience in improving student achievement indicates a modest positive relationship between the two. However, Hanushek cautions that the causal relationship between teacher experience and student achievement may be reversed, since more senior teachers may have the ability to select schools and classrooms with better students.

Figure 3.5

Educational Attainment of Chapter 1 and Regular Teachers in Public Elementary Schools, 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] Percents may not sum to 100 due to rounding.

Figure reads: Of Chapter 1 teachers in public elementary schools, 21 percent have earned a bachelors degree.

Design Study found two major reasons explaining why districts use aides in Chapter 1 instruction. Some district officials acknowledged that they employ aides rather than hiring additional teachers because aides are less expensive and can lower the student/adult ratio or extend services to more eligible students. These motivations are particularly compelling in districts with large numbers of eligible children. The Program Design Study also noted that administrators who choose in-class arrangements prefer aides because they believe combining an aide with a regular teacher minimizes potential role conflicts in the classroom.

As might be expected, the education levels of aides are well below those of teachers. Among aides who assist Chapter 1 teachers, 71 percent hold no degree or certificate, and just 6 percent have earned a bachelors degree. The educational attainment of Chapter 1 aides who assist regular teachers is slightly higher, but 65 percent of these aides hold no degree or certificate, and only 12 percent have a bachelors degree.[28]

While these data may raise concerns about the qualifications of many aides, other data make clear that the majority of schools rely primarily on teachers rather than aides to oversee Chapter 1 instruction. When elementary principals reported the pattern that "best describes" Chapter 1 reading instruction in their school, 78 percent said this pattern involves a Chapter 1 teacher, and in 41 percent of elementary schools aides work with these teachers (Figure 3.6). In an additional 16 percent of elementary schools, the dominant mode of Chapter 1 reading instruction involves a regular teacher working with a Chapter 1 aide. Only 6 percent of elementary schools usually rely on a Chapter 1 aide teaching independently. The data are similar for mathematics

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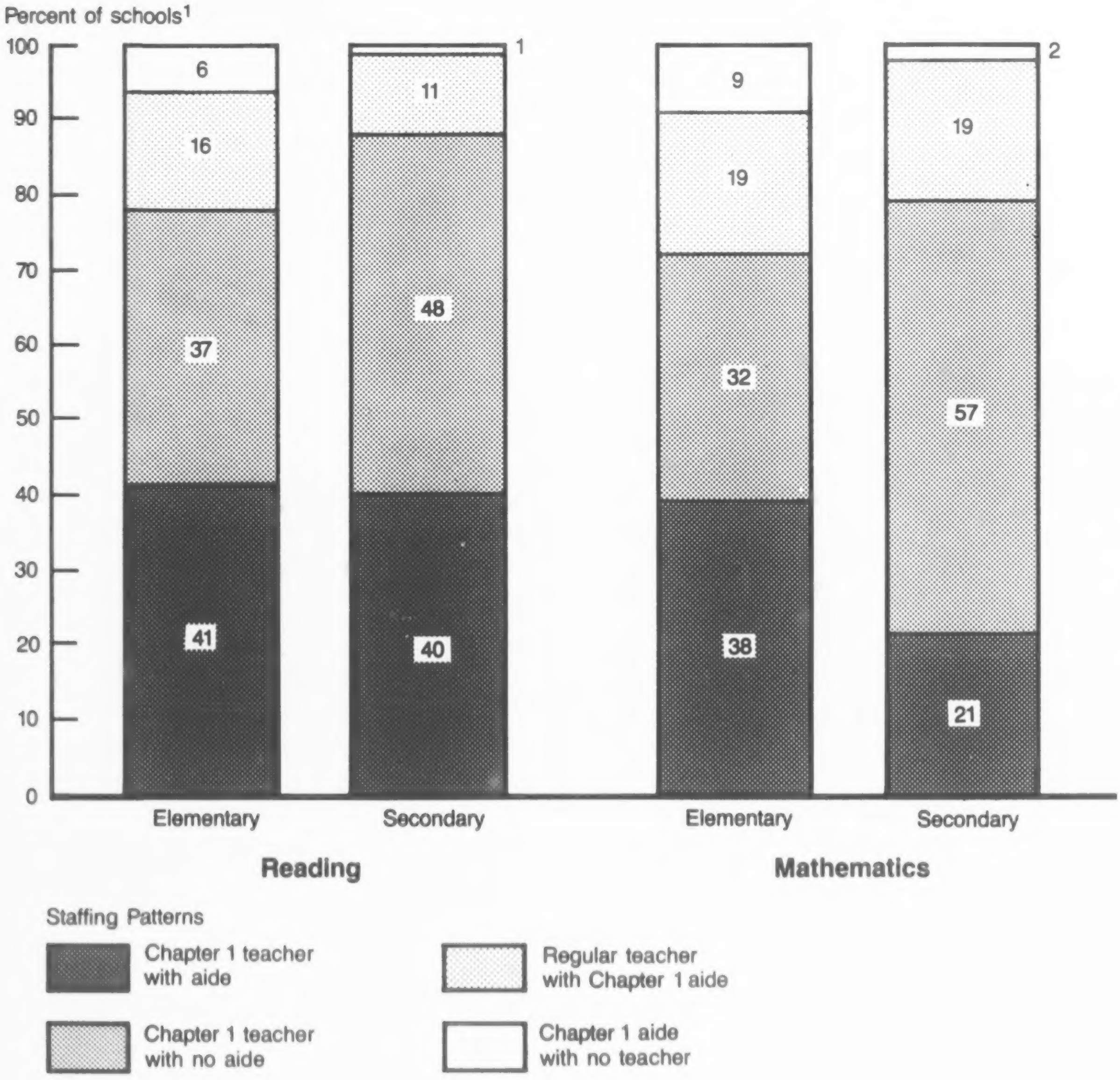
[28] Data are not available on the educational background of Chapter 1 aides who teach in the absence of a teacher. According to responses of school principals, no more than 15 percent of public elementary schools and 3 percent of middle/secondary schools use aides in this way.

Figure 3.6

Staffing Patterns That "Best Describe" Chapter 1 Instructional Services in Public Schools, as Reported by School Principals, 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] Percents may not sum to 100 due to a small number of respondents not answering the question.

Figure reads: In public elementary schools where Chapter 1 reading is offered, 41 percent of school principals report that using a Chapter 1 teacher in combination with a Chapter 1 aide best describes Chapter 1 reading instruction.

instruction. A preference for teachers as opposed to aides is even more evident in middle/secondary schools.

In fact, schools have exhibited an increased reliance on Chapter 1 teachers in recent years. In 1979-80 the number of teacher aides exceeded the number of Chapter 1 teachers by approximately 12,000; in 1984-85 the situation had reversed, with teachers outnumbering aides by about 9,000 (TIERS). Districts that have changed their staffing to reduce the number of aides often cite a view that teachers are more likely to provide consistent, high-quality instruction than are aides (Program Design Study).

When aides are used, in districts that participated in the Program Design Study, they rarely introduce Chapter 1 lessons to students. Instead, the majority of aides work with individual students or small groups of students primarily to reinforce the instruction provided by the regular or Chapter 1 teacher (Table 3.5). This role is like the one illustrated in Table 3.3, "Alicia's day," from the Whole School Day Study. Furthermore, over 90 percent of all Chapter 1 teachers reported in the School Survey that they decide which skills the aide will address, what materials will be used, and the students with whom the aide will work. Table 3.5 demonstrates that the tasks that Chapter 1 aides perform least frequently are assigning class work and teaching students independently of a teacher.

Nevertheless, the instructional role played by aides still may be cause for concern. Even though aides provide independent instruction or assign classwork less frequently than they perform other tasks, substantial proportions of those teachers and aides surveyed did report aides carrying out these activities. Furthermore, aides frequently perform other important tasks such as giving feedback to students about their work. If these aides are inadequately prepared, they are unlikely to produce the results intended.

Table 3.5

Tasks Performed by Chapter 1 Aides in Public Schools, 1985-86

	Percent of Chapter 1 Teachers/Aides in Elementary Schools[1]	Percent of Chapter 1 Teachers Aides in Middle/Secondary Schools[1]	Percent of Regular Teachers in Elementary Schools[2]
Assist students with classroom work assigned by a teacher	93	97	96
Give feedback to students about their work	93	88	86
Correct students' work	82	94	76
Assist teacher in non-instructional tasks	71	80	53
Provide instruction independently of teacher	44	45	53
Assign class work to students	34	27	31

N = 621 (sample of Chapter 1 teachers/aides in public elementary schools), 313 (sample of those in public middle/secondary schools), 72 (sample of regular teachers in public elementary schools).

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] Results are based on the responses of either Chapter 1 teachers or Chapter 1 aides working in the absence of a Chapter 1 teacher.

[2] Results are based on the responses of regular teachers who work with Chapter 1 aides in their classrooms.

Table reads: Ninety-three percent of Chapter 1 teachers and aides in elementary schools report that aides assist students with classroom work assigned by a teacher.

Previous research on the effectiveness of aides indicates that if aides are to prove helpful, their involvement must meet several conditions. For example, aides must be adequately literate, possess computational skills to perform certain instructional tasks, and receive intensive training in the content of lessons and the tasks they are to carry out (Scheutz, 1980). Our systematic inquiry into the instructional experiences of several students revealed unevenness in the effectiveness of aides (Whole School Day Study). In the schools observed, the quality of instruction provided by Chapter 1 aides was more variable than that provided by Chapter 1 teachers, although a number of aides were judged excellent instructors.

Direct Instruction

Many researchers have attempted to identify effective instructional methods, especially for low-income/low achieving students (for a review see Brophy & Good, 1986). From these efforts much empirical support has emerged for an approach known as direct instruction (Brophy & Evertson, 1974; Good, 1978; Stallings & Kaskowitz, 1974; for a review, see Rosenshine, 1983). This approach relies heavily on lecture and recitation, with teachers actively presenting lessons and providing students with guided practice in new academic skills. Direct instruction contrasts sharply with an emphasis on independent seatwork, a strategy used in many individualized instructional programs. Although good instruction usually incorporates some independent seatwork, recent research suggests that overreliance on seatwork, or reliance on it to introduce new skills, is less effective than teachers' direct instruction (Anderson, Brubaker, Alleman-Brooks, & Duffy, 1985; Brophy & Good, 1986). Research indicates that direct instruction is most effective in promoting student achievement on standardized tests in reading and mathematics; on the other hand, it may be insufficient for student acquisition of higher-level cognitive skills, especially in later grades (Doyle, 1983; Peterson, 1986).

Direct instruction occupied much of the time students spent in Chapter 1 reading instruction in the elementary schools visited by researchers for the Whole School Day Study. These researchers recorded the amount of time students spent in independent seatwork or surrogate (e.g., computer) activities as opposed to direct instruction activities such as lectures or recitations. While the amount of direct instruction in Chapter 1 reading programs varied from a low of 12 percent at one school to a high of 94 percent at another school, the Chapter 1 reading programs tended to consist of 50 to 70 percent direct instruction. When compared with regular reading lessons, Chapter 1 reading lessons contained about 10 percent more direct instruction. On the other hand, Chapter 1 mathematics instruction in elementary schools tended to include less direct instruction than did Chapter 1 reading or regular mathematics instruction. For example, only four of 13 schools had Chapter 1 mathematics programs with more than 50 percent direct instruction. In middle/secondary schools there was little teacher-directed instruction in Chapter 1 programs. In seven out of the 10 middle/secondary school projects observed in the Whole School Day Study, Chapter 1 lessons consisted of less than 20 percent direct instruction; most time was devoted to seatwork or surrogate activities.[29]

Higher Order Skills

Increasingly, observers have questioned the almost exclusive focus of compensatory education programs on lower order academic skills (Botel, 1978; Allington, Steutzel, Shake, & Lamarche, in press). In programs that emphasize lower order skills, students practice phonics skills but do little reading, or they practice basic arithmetic skills but do not apply these skills in solving problems.

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[29] For information on the use of computers in Chapter 1 instruction, see a recent report written by staff of the Office of Technology Assessment (1987), which used data collected for the National Assessment of Chapter 1.

Recently, researchers have argued that current approaches to compensatory education systematically underchallenge disadvantaged students, and that continual drill and repetition of basic skills limits Chapter 1 students' opportunities to progress to more challenging material (Calfee, 1986; Peterson, 1986; Romberg, 1986). As one researcher notes in reference to mathematics instruction, simple drill does not alleviate student weakness in understanding the subject matter (Romberg, 1986). Recent research also indicates that low achievers can be taught thinking strategies directly and may benefit more from such instruction than higher achievers (Brophy, 1986; Peterson, 1986; Pogrow & Buchanan, 1985).

The Whole School Day Study suggests that Chapter 1 students may tend to have limited exposure to higher order academic skills. In that study's sample of schools, most Chapter 1 elementary reading and mathematics projects provided students with few opportunities to engage in higher order skills. In reading, for example, students were taught phonics and vocabulary and taught to read words or sentences. They were rarely asked to read paragraphs or stories or to construe meaning from text. In mathematics, students practiced computation skills and seldom applied mathematics facts to solving problems. At the secondary level, Chapter 1 classes offered a greater variety of instructional content, in part reflecting greater variation in achievement levels among high school students. More often than not, however, Chapter 1 reading and mathematics instruction in secondary schools also focused heavily on lower order skills.

Several reasons underlie the widespread focus on lower order skills in Chapter 1 instruction (Program Design Study). Some local administrators believe introducing higher order skills would be counterproductive in Chapter 1 programs because the students need so much work in basic skills. Others do not think their instructional staff members are well prepared to teach higher order skills, especially in programs that rely on aides. Still others simply have not considered the idea of focusing on higher order skills. Finally, State testing programs can influence a decision either to include or exclude higher order skills; when the State tests these skills, local decision-makers are apt to add them to the curriculum, while tests that focus on basic skills discourage districts from teaching higher order skills.

RELATIONSHIP BETWEEN CHAPTER 1 AND THE REGULAR PROGRAM

Because both the regular program of instruction and Chapter 1 services contribute to the educational performance of educationally disadvantaged students, the relationship between the two has received considerable attention in recent years. Previous research has identified several ways that a weak or absent connection between Chapter 1 services and the regular program of instruction may impede learning. Some studies say that a diffusion of responsibility among regular and Chapter 1 teachers leaves questions as to who is responsible for the student's mastery of skills (Kimbrough & Hill, 1981). Others identify problems emerging when students receive inconsistent lessons. A failure to coordinate instruction places additional responsibility on disadvantaged students to make connections across lessons--a task that may be particularly difficult for such students (Allington, 1985).

The relationship between Chapter 1 services and the regular program varies considerably across schools (Whole School Day Study). In some schools, Chapter 1 projects build on the lessons of the regular classrooms and are designed to help students keep up with the rest of the class. At the other extreme are Chapter 1 projects that are only loosely linked to instruction in the regular classroom. In effect, the latter type of project provides students with an alternative instructional experience to that offered by the regular teacher. Researchers also observed a number of arrangements that fell between these two extremes.

The key question in terms of instructional effectiveness, however, may be whether the relationship between Chapter 1 and the regular program meets the needs of individual students. A number of educators have concluded that, because Chapter 1 students perform poorly in regular classrooms, providing them with more of that same classroom curriculum will not help them overcome their problems (Allington, 1986). The Whole School Day Study suggests that alternative Chapter 1 programs may in fact be a better method for helping students who are significantly behind grade level. In contrast, instruction linked very closely to work in the classroom appears especially beneficial to students who are only slightly behind their peers. Rarely, however, did these researchers observe efforts by school staff to consider the achievement of individual students when designing Chapter 1 services. Rather than tailoring services to different achievement levels, local officials designed Chapter 1 programs that fit their notions of best practice and the teaching preferences of school staff.

These findings lead us to conclude that the relationship between Chapter 1 and the regular instructional program should accommodate students' specific educational needs and minimize confusion. Stated differently, Chapter 1 and the regular instructional program need to be congruent. Allington (1985) defines congruent remedial programs as those in which lessons are explicitly designed and implemented to produce an integrated program of instruction for target students. Thus, what is taught, how it is taught, the sequence in which it is taught, and the materials used in the Chapter 1 and regular programs are planned and carried out so as to build, and not detract from, a child's acquisition of skills.

Assessing the extent of curricular congruence between Chapter 1 and the regular program nationally is difficult because researchers must observe and evaluate the details of instruction across many classrooms. An observational survey of this magnitude would have exceeded resources available for this Assessment. However, some information relevant to the issue of congruence was collected in studies commissioned for the National Assessment.

Over 80 percent of regular teachers say that they are responsible for teaching basic skills to Chapter 1 students, while only 64 percent of Chapter 1 instructors agree this is the regular teacher's responsibility (School Survey). These findings indicate that in some schools, both the regular teacher and the Chapter 1 instructor are taking the lead in structuring programs, presenting students with two independently designed curricula.

On the question of communication among teachers, survey data indicate that several channels for communication exist, although the joint development of lesson plans is less common than exchanges of information (Table 3.6). In some districts where administrators are concerned about weak connections between programs, they have set up formal mechanisms for communication (Program Design Study). These include joint planning time for teachers, the use of coordination sheets (where teachers exchange monthly objectives and comments about progress), and classroom schedules that allow opportunities for both staffs to exchange information. But evidence from that study also suggests that formal measures to promote coordination are easy for teachers to ignore and are unlikely to succeed in the absence of positive interpersonal relationships among school staff.

Trends in the regular instructional program in several school districts have had a more powerful, although unintended, effect on coordination with the Chapter 1 program (Program Design Study). In these districts, closer connections between Chapter 1 instruction and that of the regular classroom have stemmed from decisions to adopt standardized curricula for the regular education program. These curricular packages, which feature tightly specified objectives for each grade and predetermined sequences of skills, have the unintended result of bringing instruction in regular and Chapter 1

Table 3.6

Coordination-Related Activities of Chapter 1 and Regular Teachers in Public Chapter 1 Elementary Schools, 1985-86

	Percent of teachers	
Activities Related to Coordination	**Chapter 1**	**Regular**
Joint staff meetings to discuss Chapter 1 students' instructional needs	91	88
Use information from other teachers to evaluate students' progress	89	93
Joint development of written lesson plans	59	53

N = 934 (sample of Chapter 1 teachers in public schools), 361 (sample of regular teachers in public Chapter 1 schools).

Source: Survey of Schools conducted for Chapter 1 National Assessment, 1985-86.

Table reads: Of all Chapter 1 teachers, 91 percent report that they participate in joint staff meetings with regular classroom teachers to discuss Chapter 1 students' instructional needs.

classes closer together. Also, where district officials focus considerable attention on test scores, added pressures exist to make the whole instructional program, including Chapter 1, serve the aim of improving students' performance on the tests. Standardization of the regular curriculum appeared, in the Program Design Study, to be a stronger force for connecting Chapter 1 with regular instruction than local educators' concerns about fragmentation.

CHAPTER 1 IN THE SCHOOL SETTING

School Climate and Parent Involvement

Our focus, until this point, has been on Chapter 1 services. We now shift our emphasis to the larger setting for Chapter 1 and regular instructional services since the school environment plays an important role in how well students learn. Research on effective schools identifies a safe, disciplined, and ordered school climate as providing better opportunities for student learning than environments lacking these qualities (Coleman, Hoffer, & Kilgore, 1982; Hoffer, Greeley, & Coleman, 1985). Student achievement also improves when parents take a strong interest in their children's education and encourage them to do well (Henderson, 1987; McLaughlin & Shields, 1986; de Kanter, Ginsburg, & Milne, 1986; Rich, 1986). Data collected for the National Assessment of Chapter 1 demonstrate that these aspects of school climate (a safe, disciplined and ordered environment, and parent involvement) generally do not differ between Chapter 1 and non-Chapter 1 schools. Because three-quarters of all elementary schools receive Chapter 1, the emergence of few differences is not surprising.

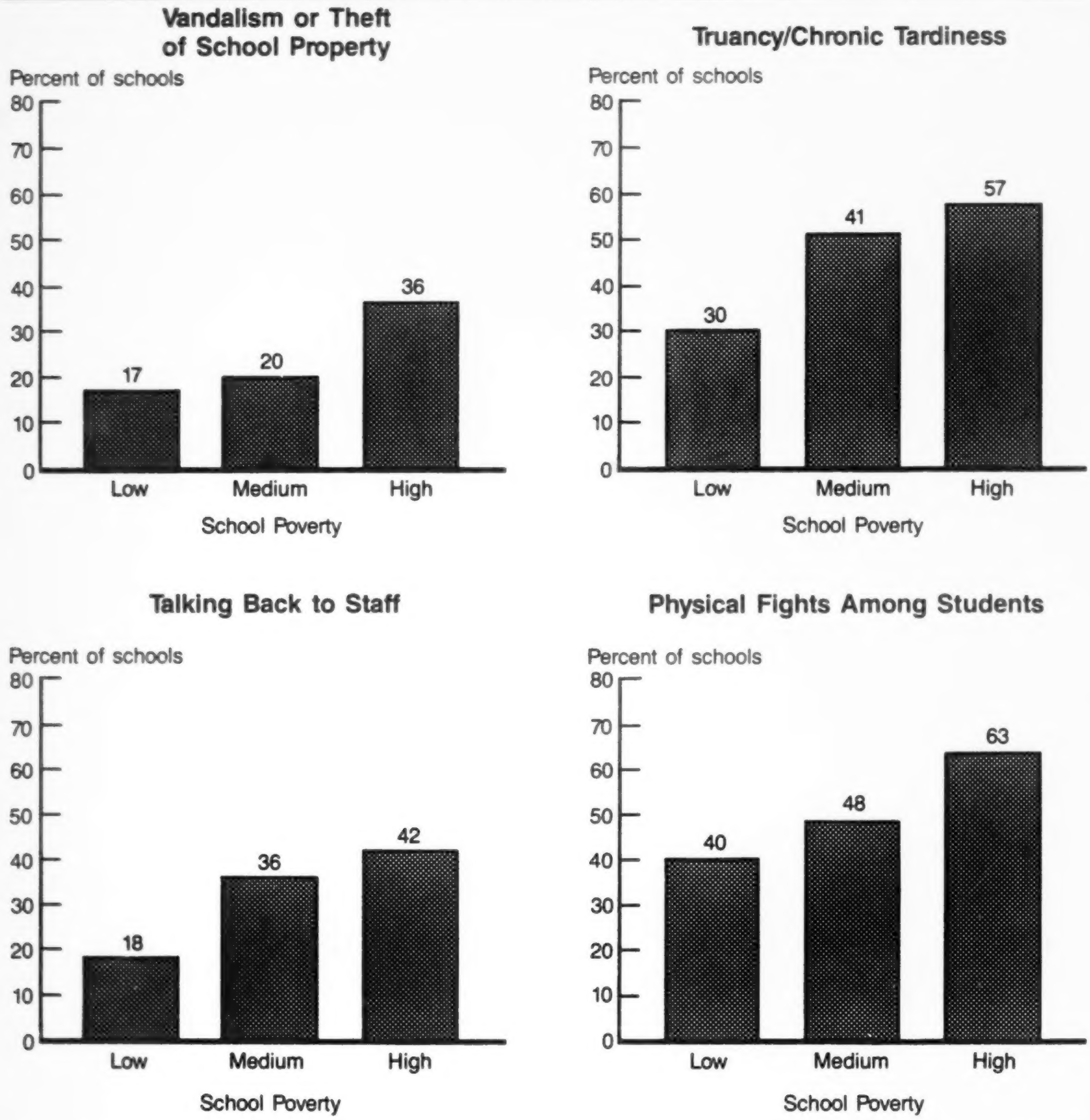
However, for the past 20 years a significant stream of research has also documented the important influence of poverty on student achievement (Coleman, et al., 1966; Jencks, et. al., 1972; Wolf, 1977; Konstant & Apling, 1984). In our first report to Congress, we reported that students attending schools with high poverty rates were more likely to perform poorly on standardized tests than were students attending schools with lower poverty rates, independent of the poverty of their own household. These statistical relationships, however, do not explain why student achievement is lower in schools with high rates of poverty. In fact, the ways in which poverty affects learning are far from clear. As we noted in our first report to Congress, researchers have looked for explanations in several arenas--resource levels, peer group influences, teacher attitudes, community influence, overall school climate--but to date no comprehensive explanation has emerged.

School Survey data address some of these factors. These data indicate differences in student behavior and parent involvement among schools with different poverty rates. Figure 3.7 displays four student behavior problems that elementary schools may confront: vandalism or theft, truancy and chronic tardiness, talking back to staff, and physical fights among students. Principals of Chapter 1 elementary schools with low rates of poverty (15 percent or below) are less likely to identify these as problems than are principals in Chapter 1 elementary schools with high rates of poverty (50.1 to 100 percent).

The relationship between poverty and the involvement of parents in the school's educational program appears more pronounced for some types of activities than for others. Principals in Chapter 1 elementary schools with low rates of poverty are more likely to report higher levels of parent involvement in school-related activities than principals in schools with high rates of poverty (Figure 3.8). This pattern is strongest for fund raising and other support activities; the patterns are similar, although not statistically significant, for involvement in PTA meetings, parent advisory organization meetings, and advising on designs of special programs. Figure 3.9 indicates that, according to school principals, parents in schools with low rates of poverty are more likely to have informal contacts with teachers and to help students with homework

Figure 3.7

Student Behavior Problems[1] in Public Chapter 1 Elementary Schools, by School Poverty[2], as Reported by Principals, 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

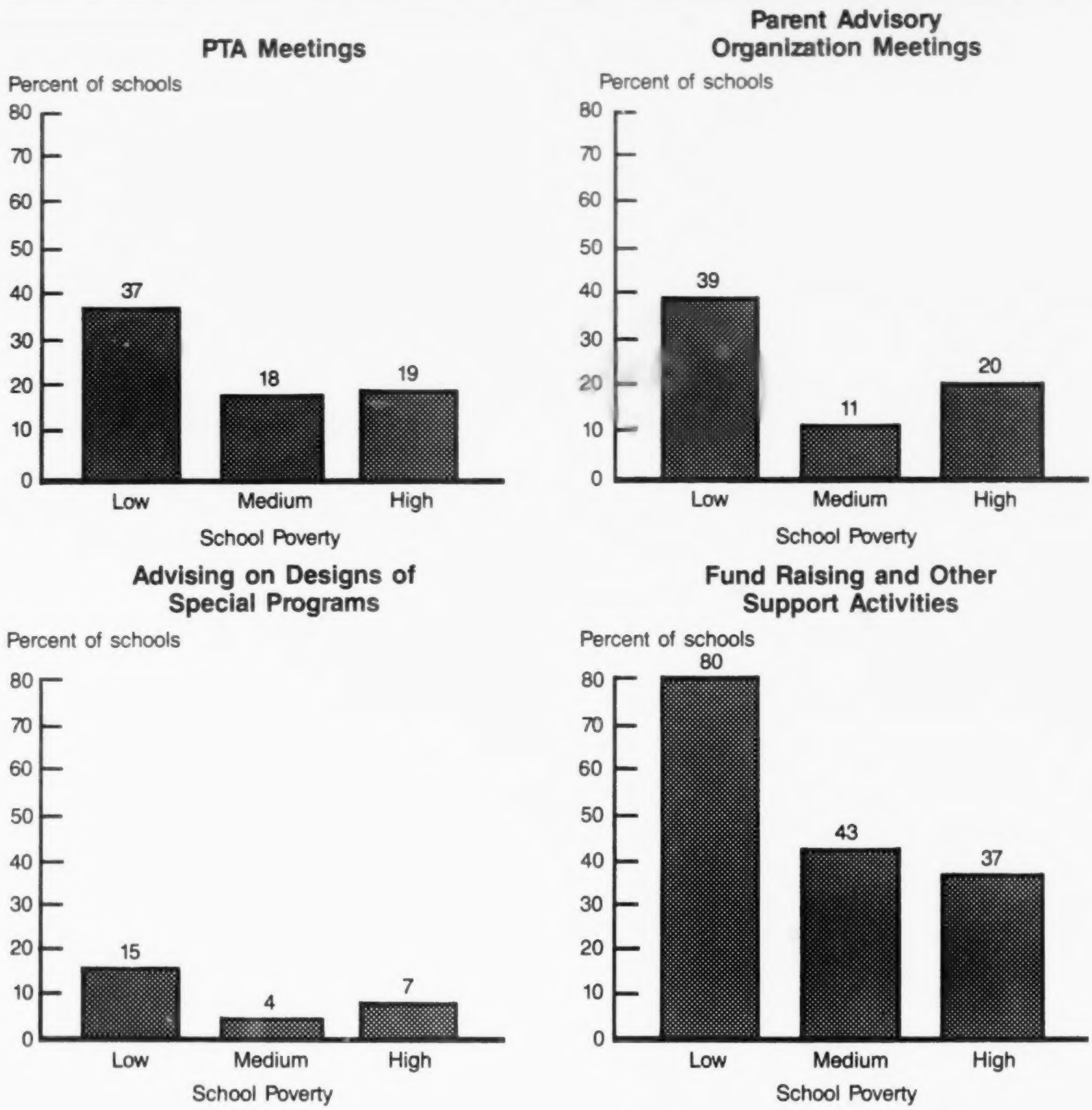
[1] A student behavior was defined as "a problem" if the principal reported it was either "a serious problem" or "somewhat of a problem". The other response category was "not at all a problem".

[2] School poverty classifications are based on principal's reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty categories (low, medium and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0-15 percent poor), medium (15.1-50 percent poor) and high (50.1-100 percent poor).

Figure reads: Seventeen percent of principals in public elementary schools with a low percentage of poor students report that vandalism or theft of school property is a problem.

Figure 3.8

School-Related Activities in Which Parents are "Very Involved"[1] in Public Chapter 1 Elementary Schools, by School Poverty[2], as Reported by Principals, 1985-86



PTA Meetings

Parent Advisory Organization Meetings

Advising on Designs of Special Programs

Fund Raising and Other Support Activities

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

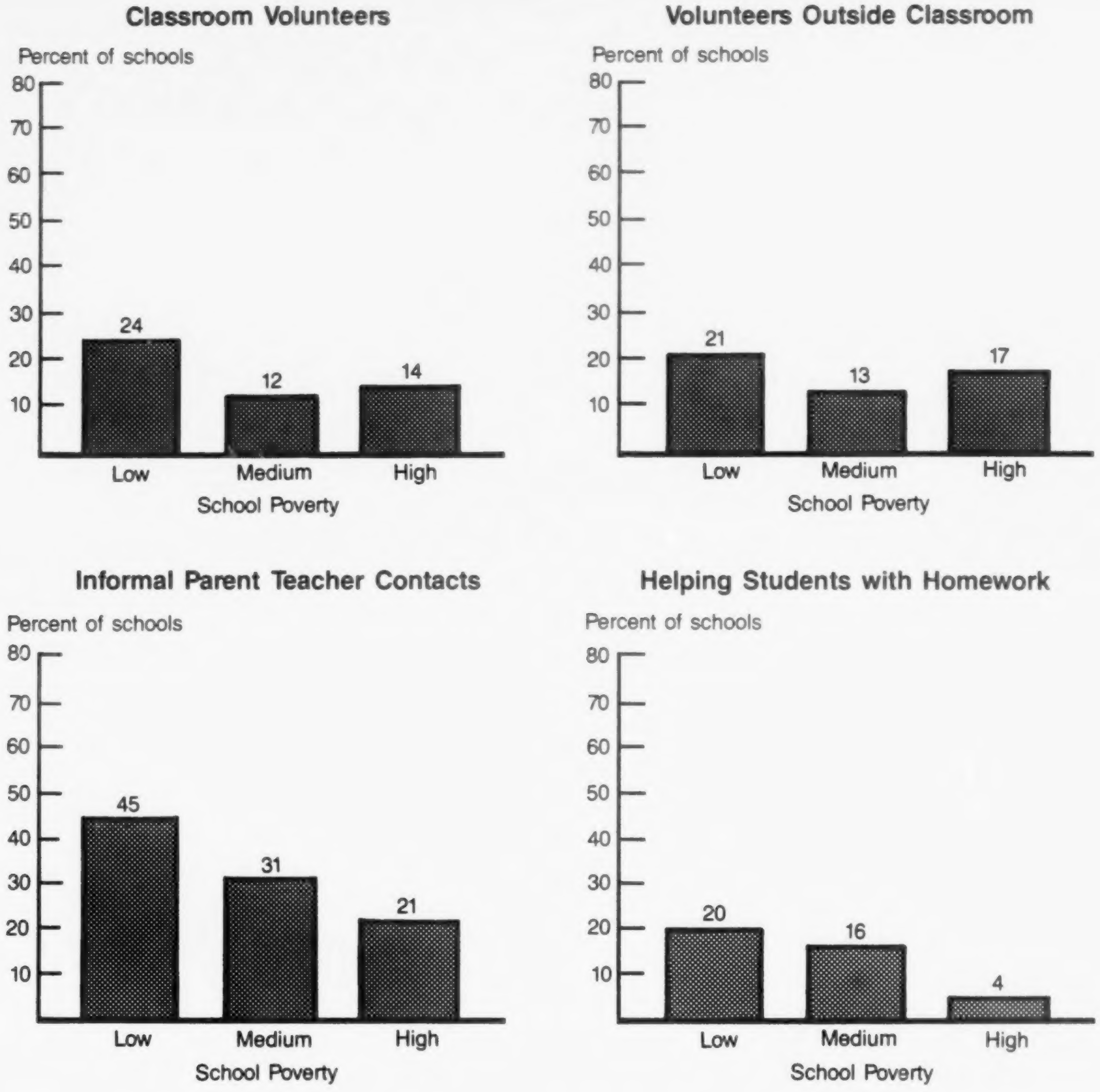
[1] Other response categories were "somewhat involved", "not involved", and "activity not offered".

[2] School poverty classifications are based on principal's reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty categories (low, medium and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0-15 percent poor), medium (15.1-50 percent poor) and high (50.1-100 percent poor).

Figure reads: Thirty-seven percent of principals in public Chapter 1 elementary schools with a low percentage of poor students report that the parents of their students are "very involved" in PTA meetings.

Figure 3.9

Education-Related Activities in Which Parents are "Very Involved"[1] in Public Chapter 1 Elementary Schools, by School Poverty[2], as Reported by Principals, 1985-86



Classroom Volunteers

Volunteers Outside Classroom

Informal Parent Teacher Contacts

Helping Students with Homework

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[1] Other response categories were "somewhat involved", "not involved", and "activity not offered".

[2] School poverty classifications are based on principal's reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty categories (low, medium and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0-15 percent poor), medium (15.1-50 percent poor) and high (50.1-100 percent poor).

Figure reads: Twenty-four percent of principals in public Chapter 1 elementary schools with a low percentage of poor students report that the parents of their students are "very involved" in serving as classroom volunteers.

than are parents in schools with high rates of poverty.[30] Principals' reports of parent involvement as volunteers in or outside the classroom do not differ substantially between Chapter 1 schools with low and high rates of poverty.

Our examination of the school setting for Chapter 1 instruction indicates that Chapter 1 schools with high concentrations of poor students often do not experience the extra reinforcement of learning that comes from a safe and orderly school environment and the involvement of parents in school- and education-related activities.

School Poverty and Instructional Services

In addition to allowing us to examine the relationship between poverty rates of schools and school climate and parent involvement, the School Survey afforded us an opportunity to analyze how regular and Chapter 1 instruction differ under varying degrees of poverty.

Our investigations of the regular instructional program in Chapter 1 schools indicated that the size of regular classes, days per week of instruction in reading and mathematics, and years of experience and educational attainment of regular teachers are quite similar across schools with different poverty rates. However, we found one difference. According to regular classroom teachers, students in Chapter 1 schools with low rates of poverty receive more minutes per day of regular reading instruction (80 minutes) than students in schools with higher rates of poverty (60 minutes), as shown in Figure 3.10. The pattern is the same, although not statistically significant, for regular instruction in mathematics. Perhaps other features of effective instruction also could distinguish schools with different poverty rates from one another. However,

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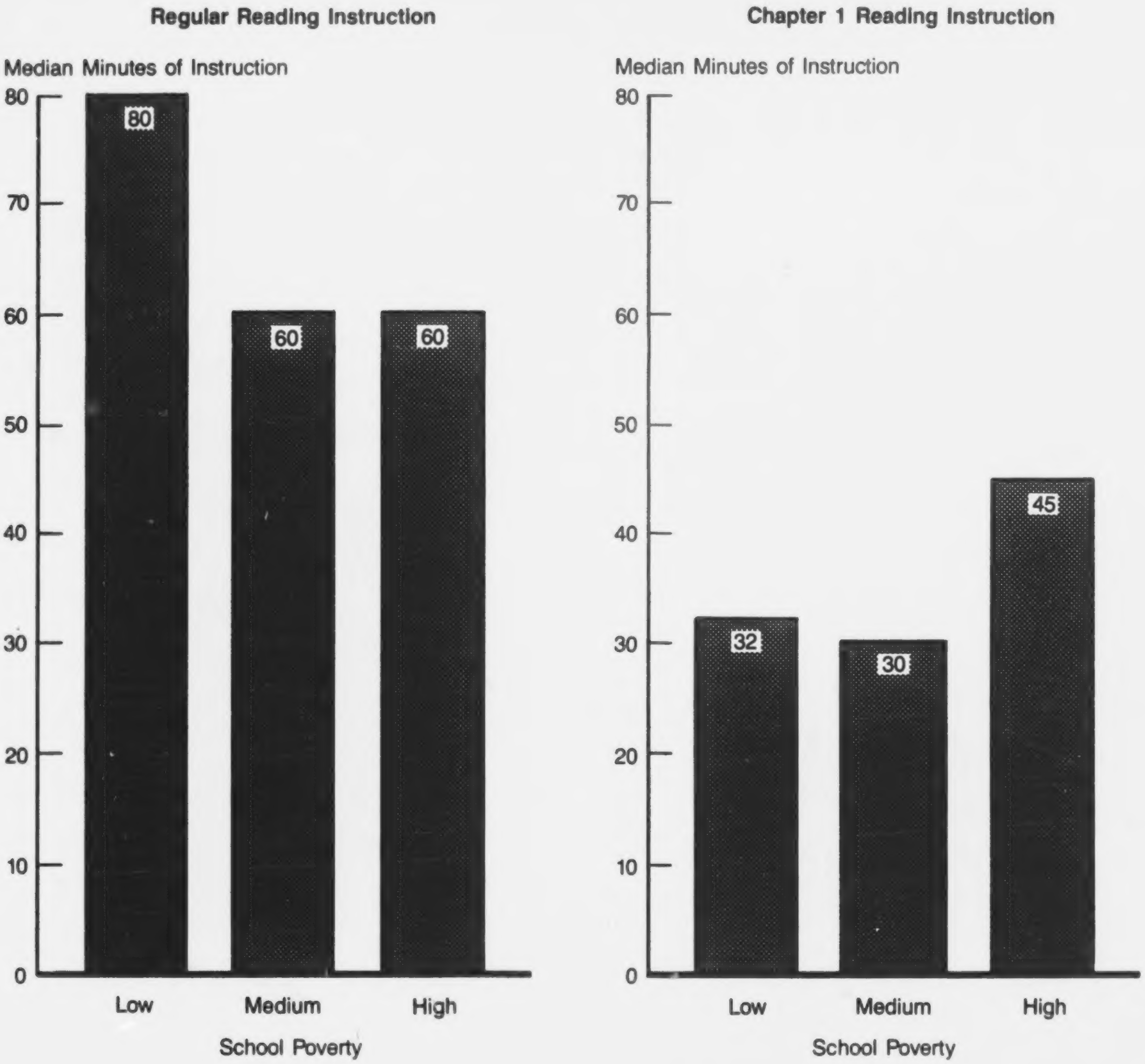
[30] Parents might provide more accurate estimates than principals of the educational assistance that they give to their children. However, because of the technical difficulties and costs associated with drawing a representative sample of Chapter 1 parents, the National Assessment did not conduct a national survey of parents.

Figure 3.10

Time Devoted to Chapter 1 and Regular Reading Instruction, by School Poverty[1], 1985-86



Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

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[1] School poverty classifications are based on principal's reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty categories (low, medium and high) were derived by dividing the survey population into quartiles, and combining the middle two quartiles into one category. Categories are defined as follows: low (0-15 percent poor), medium (15.1-50 percent poor) and high (50.1-100 percent poor).

Figure reads: In public elementary schools with a low percentage of poor students, the median minutes of regular reading instruction is 80.

instructional features such as the use of direct instruction or the teaching of higher order skills could not be ascertained using the survey methods we employed.

We also examined differences in Chapter 1 instruction in schools with different poverty rates. With regard to the features of effective instruction reviewed in this chapter, we found no differences in Chapter 1 services among schools with different poverty rates. The size of instructional group, days per week of instruction, and educational qualifications of Chapter 1 teachers are about the same in all Chapter 1 schools. However, Figure 3.10 shows that Chapter 1 teachers in elementary schools with high rates of poverty reported more minutes per day in Chapter 1 instruction (45 minutes) than did teachers in schools with low rates of poverty (32 minutes). Despite the greater amount of time devoted to Chapter 1 instruction in schools with high poverty rates, the smaller amount of time devoted to regular reading in these schools suggests that their students may receive less total reading instruction than students in Chapter 1 schools with low rates of poverty.

The Implementation of Schoolwide Chapter 1 Projects

Our review of the larger school setting and of instructional features in schools with high poverty rates implies that, in some cases, simply focusing on improving the schools' Chapter 1 projects may not be enough to achieve the desired outcome of improved academic performance. Recognition of the difficult educational issues facing schools with large concentrations of poor children prompted Congress to permit a district with more than 75 percent poor children in a school attendance area to implement a schoolwide remedial project. Schoolwide projects, allowed under both Title I and Chapter 1, release schools from aspects of the fiscal requirements that prompt schools to separate Chapter 1 students and staff from the core instructional program.[31] Once they add extra resources from State or local sources to cover those students not eligible for Chapter 1, schools implementing schoolwide projects can use their Chapter 1 funds to support activities to improve the educational functions of the entire school (such as the curriculum, parent involvement, teacher inservice training) or to improve services to all students in the school (by reducing class sizes, for instance). Referring to research on successful school practices, proponents argue that this approach applies extra resources to the six hours children spend in school each day, rather than the half hour they spend receiving Chapter 1 instruction (Smith, 1986).

Although the law has authorized schoolwide approaches since 1978, few schools have adopted them. Data from our nationwide survey of schools indicate that over 5,000 Chapter 1 elementary schools (14.5 percent) met the poverty criterion of 75 percent in 1985-86 and thus were eligible to adopt schoolwide approaches, yet only about 800 of these schools did so.[32] Similarly low levels of adoption are reported in earlier studies (NCES, 1980).

Several factors lie behind schools' infrequent adoption of schoolwide projects (Program Design Study). One is districts' reluctance to allocate matching funds. Many districts try to spread local resources evenly across schools, and adding resources to only a few schools contradicts this norm. In some cases, moreover, those few schools are not much poorer than the others. For example, a site visit to one small district revealed that three of four schools are eligible for schoolwide projects. The one ineligible school is a high school in which low-income students constitute 68 percent of the student body. District officials do not believe it would be reasonable to take local resources from the high school to concentrate them in the elementary grades when most of the students in the high school were also eligible for Chapter 1 services.

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[31] Although the original version of the Chapter 1 law failed to mention the schoolwide projects provisions of Title I, the 1983 Technical Amendments restored them to the statute.

[32] If middle/secondary schools are added, about 7,400 Chapter 1 schools met the poverty criterion of 75 percent in 1985-86.

School poverty classifications are based on principals' reports of the percent of students enrolled in their schools who were eligible for free or reduced price lunches during the 1985-86 school year. Use of alternative measures of school poverty (for example, census data on family income or AFDC enrollment) are likely to yield different estimates.

Some districts describe ways that they are able to achieve schoolwide improvements without the specific fiscal constraints imposed by Federal requirements. Some large districts in the Program Design Study in fact allocate extra local money to schools with the highest concentrations of poor students to comply with desegregation consent decrees. The funds pay for reduced class sizes, resource and other special teachers, and computers and other special equipment. Officials in these districts believe this approach is less expensive than implementing a Chapter 1 schoolwide project and politically more acceptable because of the desegregation focus.

District officials' reluctance to implement schoolwide projects also stems from their recognition that changes may occur in the local budget or a school's concentration of poor students. District officials are wary of installing programs they may later have to dismantle. In fact, several districts in the Program Design Study contain schools that once were eligible for a schoolwide project but subsequently failed to meet the required poverty level. Finally, staff in some districts and schools have only recently learned of the possibility of establishing schoolwide projects (Program Design and Targeting Studies).

In the few elementary schools that have adopted schoolwide approaches, evidence from the Program Design Study suggests that these efforts are not particularly comprehensive. The focus of the programs visited in that study is quite narrow, for example: (1) reducing the student/teacher ratio of all classrooms, (2) establishing a reading program based on content drawn from science and providing inservice training in its use for all teachers, and (3) instituting a computer lab and hiring an additional pre-K teacher. While these activities appear to incorporate useful approaches, they aim at singular aspects of the school and as a result fail to capture the breadth of efforts characteristic of schools that are effectively serving poor students. These effective schools emphasize the establishment of clear goals, high expectations, and planning efforts that engage the entire school staff (Purkey & Smith, 1983). They also create favorable environments for learning--a safe, disciplined, and orderly school climate and the involvement of parents in their children's education. The efforts of these schools that succeed in improving student achievement have a wider scope than _just_ a reduction in class size or the introduction of a new reading program.

Notions of improving the school as an entity remain compelling when the educational problems of schools with large concentrations of poor pupils are considered. To date, however, Chapter 1 schools implementing schoolwide projects have demonstrated somewhat limited applications of the concept of schoolwide reform.

SERVICES TO STUDENTS WHO ATTEND PRIVATE SCHOOLS

Since the inception of Title I, school districts receiving Federal compensatory education funds have been required to make remedial services available to eligible students attending private schools. The Supreme Court's decision in _Aguilar vs. Felton_ prohibits the provision of most Chapter 1 instructional services on the premises of sectarian schools because of unconstitutional entanglements of religion and government that result.[33] Before the decision, students could receive Chapter 1 services in religiously affiliated private schools, provided the public school system retained administrative control of the funds and staff.

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[33] Federal administrators issued guidance in 1985, 1986, and 1987 to State and local Chapter 1 recipients indicating permissible service arrangements. These included instruction in neutral sites (vans, mobile classrooms, and leased space), the provision of "diagnostic" services, and the placement of equipment in private schools for the purpose of providing computer-assisted instruction.

The timing of the Aguilar decision made it difficult to gather completely reliable, up-to-date information about services to private school pupils. When the National Assessment undertook its surveys of districts and schools in the 1985-86 school year, many districts were still adapting to the Court's decision and ED's advisories. In 1986-87, to obtain better information about student participation, the National Assessment undertook an additional survey of districts providing services to private school students. Nevertheless, the difficulty of collecting information in a time of uncertainty and change makes several of the following findings tentative.[34]

Participation of Private School Students

Over most of the past decade, the proportion of Chapter 1/Title I students attending private schools has remained fairly stable, hovering around 4 percent (Table 3.7). Information about private school students' participation during 1986-87, collected through the Private School Student Participation Survey, suggests a 50,000 pupil decline in the participation of students from private schools, a number which could reflect the impact of the Aguilar decision. The 130,617 private school pupils reportedly served by Chapter 1 in 1986-87 is the lowest number participating in the

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[34] Three major sources of survey data are used to report patterns regarding private school students' services: (1) the School Survey, (2) the District Survey, and (3) the Private School Student Participation Survey, conducted as a Fast Response Survey for the National Assessment by OERI's Center for Education Statistics. The School Survey collected information from private school administrators, while the Private School Student Participation Survey relied on responses from public school officials. Private school information from the School Survey contains the most serious weaknesses: the sample of private schools was small, nonresponse was high, and some districts were operating under special one-year waivers. Moreover, the School Survey sample reflects the concentration of private school students in large, metropolitan districts; in fact, around 40 percent of the private schools sampled are from one very large, urban district. As a result it may not accurately characterize the diversity of practices in different locales. Because of these problems, wherever we report findings from the School Survey we have relied on corroborating data from other sources.

Table 3.7

Participation of Private and Public School Students in Title I/Chapter 1, 1979-80 through 1986-87

Year	Number of Students in Private Schools	Number of Students in Public Schools	Private as Percent of Total
1979-80	189,654	5,173,688	3.53
1980-81	213,449	5,087,989	4.02
1981-82	184,084	4,668,585	3.79
1982-83	177,161	4,554,190	3.74
1983-84	190,664	4,620,927	3.96
1984-85[1]	180,670	4,574,441	3.80
1985-86	N/A	N/A	N/A
1986-87[1]	130,617	N/A	N/A

Sources: Public and private school numbers through 1982-83 are from Synthesis of State Chapter 1 Data: Summary Report, Carpenter and Hopper (1985). Public and private school numbers for 1983-84 and public school participation for 1984-85 are from A Summary of State Chapter 1 Participation and Achievement Information for 1984-85, Gutmann and Henderson (1987). Private school numbers for 1984-85 and 1986-87 are from the Private School Student Participation Survey conducted for the Chapter 1 National Assessment.

[1] The number of public school students for 1984-85 and private school students for 1984-85 and 1986-87 excludes students from Missouri and Virginia whose private school students participate in Chapter 1 under "by-pass" arrangements. Private school data for 1986-87 are current as of November 1, 1986.

Table reads: During the 1979-80 school year, 189,654 Title I students were enrolled in private schools, and 5,173,688 Title I students were enrolled in public schools; 3.53 percent of Title I students were enrolled in private schools.

program across all the years examined. Since there is no reason to expect a corresponding decline in the number of public school participants (as occurred during the 1981-82 school year), the percentage of Chapter 1 students attending private schools would appear to have dropped noticeably in 1986-87.

Table 3.8 demonstrates that this decline in private school students' participation was the least in small districts (about 19 percent) and was equally large in medium-sized and large districts (31 and 28 percent, respectively). By region, the smallest declines occurred in the West and Southwest (8 percent) and the largest in the Southeast (41 percent). Nevertheless, it is not clear that the magnitude of these declines accurately reflects private school students' participation during the 1986-87 school year. Some districts surveyed in the fall of 1986 expected the number of private school students to increase later in the school year (Private School Student Participation Survey).[35]

Location of Services to Private School Students

The Aguilar decision has been instrumental in shifting the location of Chapter 1 services off the premises of sectarian schools. In prior years, private school pupils received Chapter 1 instruction predominately in their own schools, usually from itinerant teachers or aides working for the public school system (Jung, 1982). However, in 1986-87 the great majority of these services took place in locations other than the private school. Figure 3.11 demonstrates the shifts in the location of services that occurred in the wake of Aguilar. For example, 90 percent of participating private school students received services in their own schools in 1984-85, but only 19 percent

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[35] Interpreting these district responses is complicated by the fact that about one-fifth of all private school participants in the nation are located in two districts. Depending on the responses of these districts, estimates of student participation could vary greatly. As an example of the distortions that are possible when shifting from student to district levels of analysis, consider that overall private school student participation dropped 28 percent from 1984-85 to 1986-87, but the number of districts serving private school students dropped only 7 percent.

Table 3.8

Number of Chapter 1 Students Attending Private Schools, by Selected Characteristics of School Districts, 1984-85 and 1986-87[1]

District Characteristic	1984-85	1986-87	Percent change
Total	180,670	130,617	−28
District Size			
Less than 2,500	21,014	17,095	−19
2,500 - 9,999	42,573	29,281	−31
10,000 or more	117,083	84,241	−28
Region			
North Atlantic	86,820	54,112	−38
Great Lakes and Plains	35,226	28,937	−18
Southeast	18,809	11,036	−41
West and Southwest	39,845	36,533	−8

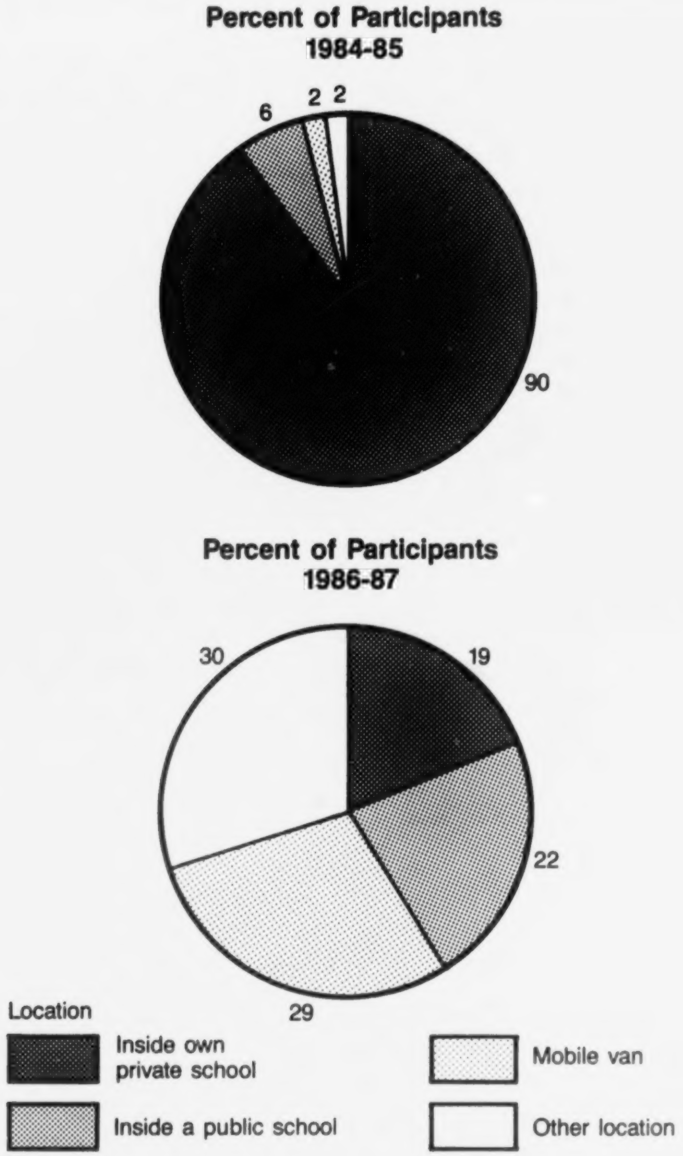
Source: Private School Student Participation Survey conducted for the Chapter 1 National Assessment, 1985-86.

[1] For the 1984-85 and 1986-87 school years unduplicated counts of the public and nonpublic school students served by Chapter 1 are reported. For the 1986-87 school year, the number of students served on November 1, 1986 is presented. Students are counted only once if they receive(d) Chapter 1 services in more than one subject. Data exclude private school participants in Missouri and Virginia where by-pass provisions operate.

Table reads: Between 1984-85 and 1986-87, the number of Chapter 1 students attending private schools dropped 28 percent from 180,670 to 130,617.

Figure 3.11

Location[1] of Services to Private School Chapter 1 Participants, 1984-85 and 1986-87



Source: Private School Student Participation Survey conducted for the Chapter 1 National Assessment, 1985-86.

[1] For the 1984-85 and 1986-87 school years, respondents estimated the percent of nonpublic school students served by their Chapter 1 program who received instructional services at each location. For the 1986-87 school year, respondents reported the service locations used on November 1, 1986.

Figure reads: In 1984-85, 90 percent of private school Chapter 1 participants received instructional services in their own private schools, compared to 19 percent of such students in 1986-87.

did so in 1986-87. The proportion of private school participants served in mobile vans increased dramatically, rising from 2 percent to 29 percent. Public school classrooms and other locations increased significantly as locations for Chapter 1 instruction for private school students during this period.

In some instances local educators have enlisted technology to continue some instructional assistance to private school students in their own schools. For example, some districts have moved to computer-aided instruction, television or radio broadcast, or use of telephone hook-ups in their services to pupils in private schools. About 7 percent of districts reported using technological means to deliver instruction in 1986-87 compared with less than 3 percent in 1984-85. The number of private school students affected increased six times, from about 3,000 to almost 20,000.

The Program Design Study identified some reasons for the choice of technological solutions. District officials, often in consultation with their States, have decided that such mechanisms, which do not rely on a teacher or aide present on the premises, appear to fall within the bounds of the Aguilar decision. Also, computers and related equipment may provide districts with a less expensive way of making the adjustments Aguilar required. Average mobile van costs range from $10,000 to over $100,000 depending on size and facilities. Installing computers for eligible private school students on the premises of the school can present an attractive option to districts, largely because computer-assisted efforts (unlike vans) usually permit reductions in the number of instructional staff required to implement services to private school pupils.[36]

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[36] See Millsap & Wilber (1987) for a discussion of private school services since Aguilar in 11 school districts in Massachusetts. This report includes a description of Boston's program of computer-managed instruction to serve 1,600 private school students in their own schools.

Comparisons of Chapter 1 Services to Public and Private School Students

Congress included specific language in the Title I and Chapter 1 statutes to ensure services to eligible private school students were equitable in comparison to those provided to public school students. The standard of equitability requires more than simply expending equal amounts of money on a per student basis. Services may be considered equitable to the extent that:[37]

- The district assesses, addresses, and evaluates private school students' needs and progress on the same basis as those of public school students.
- The district provides about the same amount of instructional time and materials for private as for public school participants.
- The instructional services cost about the same.
- Eligible children from private schools and public schools have similar opportunities to participate in Chapter 1.

Because equitability has several facets and because it legally applies to comparisons of services to public and private school students within individual districts, national assessments of equitability are difficult in the absence of specially constructed samples.[38] Nevertheless, underpinning the concept of equitability is the notion of similarity. Therefore, we have used nationally representative survey data collected for the National Assessment to examine the degree of similarity in Chapter 1 services to public and private school students nationwide.

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[37] U.S. Department of Education, "Additional Guidance on Aguilar v. Felton and Chapter 1 of the Education Consolidation and Improvement Act (ECIA), Questions and Answers," June 1986.

[38] As previously noted, the School Survey, which provides much of our information about the various components of instruction, is representative of the nation as a whole for public schools and private schools. Because private school students are more concentrated in large districts in urban areas, the nationally representative sample of private schools reflects this emphasis. In contrast, the public school sample represents a broader demographic base, more reflective of schools nationwide. Comparisons between the two samples can sometimes provide a misleading picture because the public school sample includes schools in districts with no services to private school pupils.

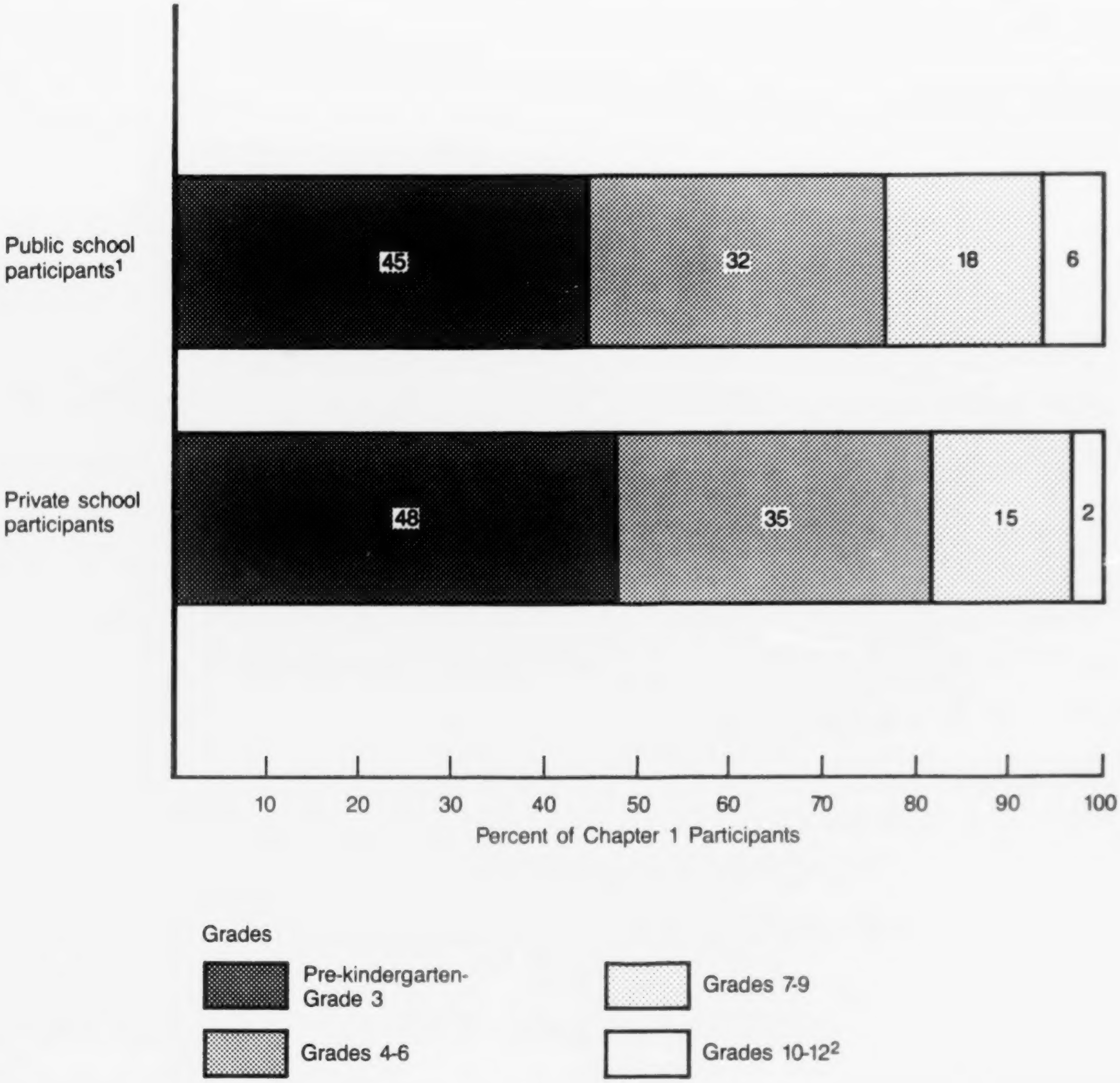
Like Chapter 1 services to public school students, services to private school students focus on the elementary grades. Figure 3.12 reveals that 83 percent of private school participants are in grades pre-kindergarten through 6 compared with 77 percent of public school pupils. Information from TIERS indicates little change across the years in the percentage of private school participants in these elementary grades.

Private school services also resemble public school services in their emphasis on reading and mathematics. Close to three-fourths of private school principals report their students participated in Chapter 1 reading instruction during the 1985-86 school year; about the same proportion of private school principals reported Chapter 1 mathematics participation. These responses do not vary substantially from those of public school principals. Data from TIERS indicate that over the years the percentages of private school pupils enrolled in Chapter 1 reading and mathematics have remained stable and similar to public school distributions in these subjects. Approximately 75 percent of private school participants received reading and close to 40 percent received mathematics instruction in the 1984-85 school year (TIERS). Although more recent data are not yet available, we have little reason to expect shifts in these percentages.

Services for private school students have resembled those for public school students in a reliance on pullouts in the recent past. In 1985-86, the year before full implementation of the Aguilar decision, 81 percent of district Chapter 1 administrators reported no difference between public and private school use of pullout settings, but 12 percent indicated that private school students were more likely to receive instruction through pullouts (District Survey). The use of pullouts for private school students has undoubtedly increased since that survey. In fact, since the Aguilar decision, a very

Figure 3.12

Chapter 1 Participants in Public and Private Schools, by Grade, 1984-85



Source: A Summary of State Chapter 1 Participation and Achievement Information for 1984-85, Gutmann & Henderson (1987).

[1] Percents do not sum to 100 due to rounding.

[2] Number includes a small number of "ungraded" students, i.e., those not currently classified as enrolled in a particular grade.

Figure reads: In 1984-85, 45 percent of public school Chapter 1 participants were in grades K-3, compared to 48 percent of private school participants.

large proportion of private school student services entails removing the students from their schools.

Beyond these patterns, available data are inconclusive concerning the similarities or dissimilarities between Chapter 1 instruction for public and private school students (School Survey). Nationally, the data suggest a pattern of similarity in the number of days per week and minutes per day that Chapter 1 instruction is provided, and in the years of experience of the Chapter 1 teachers providing these services. The median number of days per week is five for both groups of pupils, and the median minutes per day of reading instruction equal 30 for private school students and 35 for public school students. However, because estimates from the smaller private school sample are subject to greater imprecision than those from the public school survey, caution is warranted in these comparisons.

When asked to compare Chapter 1 services provided to private and public school pupils, over 80 percent of district officials reported no difference in weekly instructional time per student and over 70 percent reported no difference in class sizes (District Survey). Yet, some district officials did indicate that services differed for the two groups of students. Almost a quarter indicated Chapter 1 class sizes were smaller for private school pupils and 14 percent reported that private school students received less instructional time per week than did their public school counterparts. The Resource Allocation Study suggests that the smaller class size may result from the way districts assign teachers to schools: for instance, a private school may have fewer eligible students than a public school, but the most efficient way to use staff may still be to assign one teacher to each school. The difference in instructional time may reflect transition time between settings, especially since *Aguilar*.

The Process of Adjusting to Aguilar vs. Felton

Under pressure from the Court decision and their States to change the services they provided to private school students, districts experienced transitions that ranged from smooth to painful (Program Design Study). Some districts made new arrangements quickly and continued to enjoy good working relationships with private schools, while others struggled for months to come up with a workable new plan, and still others found that no private school students would participate in the arrangements they devised.

One factor favoring success in the Program Design Study districts was a history of good working relationships with private schools. In many districts, administrators in the public and private schools who had years of experience in consultation over Federal program services were able to work out a mutually acceptable response to Aguilar. Another factor was experience with an arrangement that would satisfy Aguilar, such as serving handicapped students who attend religious schools in settings outside their schools. Still another was help from outside agencies. Several States provided their districts with suggestions about ways to comply, and diocese staff offered similar help in some places. Finally, although hard work did not guarantee success, Chapter 1 officials in some districts spent countless hours working out acceptable arrangements for private school students. In other districts, officials made rapid, arbitrary decisions that did not meet with success.

SUMMARY OF FINDINGS REGARDING EDUCATIONAL SERVICES PROVIDED TO CHAPTER 1 STUDENTS

- **Chapter 1 continues to be primarily an elementary school program that offers basic skills instruction in reading and mathematics. Services in elementary schools typically are provided outside the regular classroom for about 30 to 35 minutes each day, although the number of minutes varies across districts and schools.**

For the past decade and more, districts have used Title I and Chapter 1 funds to support remedial instruction in reading and mathematics in the elementary grades. Data presented in this chapter confirm the stability of this pattern and point to several reasons for its occurrence. First, the great majority of school staff subscribe to the value of early intervention in subject areas that constitute the foundation for learning in later grades. Second, our findings indicate that local administrators find it difficult to design and schedule secondary school Chapter 1 programs.

Another enduring feature of Chapter 1 services is the use of pullout settings. This is due in part to local preferences for particular service arrangements and beliefs about effective approaches to remediation. Pullouts also endure because of tradition--a tradition fortified by State and local concerns about compliance with the supplement, not supplant and general aid provisions. While debate continues over the educational effectiveness of pullouts as opposed to in-class arrangements, the evidence is ambiguous because of differences in the ways these options are translated into practice.

Elementary students typically receive Chapter 1 instruction for about half an hour per day, but the time can vary depending on the design of the Chapter 1 project and the particular district or school the students attend. The amount of time that districts provide services can depend on budget levels combined with decisions about how many schools and students to serve. For example, some districts or schools choose to serve larger proportions of their eligible students by providing less time for each student.

- **Certain features of effective education are found in most Chapter 1 programs.**

    - About three-fourths of all Chapter 1 teachers provide instruction in groups of eight students or less, a group size that is small enough potentially to improve academic achievement.

    - Almost all Chapter 1 elementary schools (over 90 percent) rely on teachers to provide instruction either alone or with the assistance of an aide. Chapter 1 services are provided by teachers whose educational levels and years of experience are about the same as those of regular teachers.

- Other features of effective instruction--for example, active teacher direction and coordination with the regular program--are found in some Chapter 1 schools but not others.

- Still other program approaches are rarely found in Chapter 1 settings.

    - Few Chapter 1 programs provide services that would substantially increase the total amount of time devoted to instruction (for example, before or after school or during the summer).

    - Chapter 1 projects provide students with few opportunities to engage in higher order academic skills, which some researchers believe should be a component of Chapter 1 instruction.

The presence or absence of these features across individual Chapter 1 programs can help explain the improvements in achievement scores of some Chapter 1 pupils and not others. Several reasons lie behind schools' differential inclusion of these features. Contractual and practical considerations can discourage changes that would involve wholesale shifts in Chapter 1 staff. Logistical considerations can also come into play. For example, districts may find after-school and summer programs infeasible due to difficulties in transporting students. Differences in pedagogical beliefs, such as disagreements about the value of higher order skills for Chapter 1 programs, also determine the presence or absence of certain approaches. Finally, decisionmakers in districts and schools are sometimes unfamiliar with the variety of program options available to them.

In assessing the quality of Chapter 1 services nationwide, recognizing the degree of local variation is critically important. Districts and schools combine more and less effective features in many different ways.

- **Two characteristics of effective schools, a safe and orderly climate and parent involvement, occur less often in Chapter 1 schools with high poverty rates than in Chapter 1 schools with low poverty rates.**

Our first report to Congress documented the added educational disadvantages experienced by students who attend schools with high concentrations of poor children. Data in this report confirm that schools with large proportions of poor children have environments that are less conducive to learning than schools with fewer poor children. Chapter 1 services in these schools confront a more difficult challenge than they do in less poor schools. For this reason, some researchers have recommended that these schools may need to adopt strategies that aim at schoolwide improvement. However, a limited number of the schools eligible to establish Chapter 1 schoolwide projects have done so, frequently because allocating additional local funds to these schools and not to others is difficult. Furthermore, several of the Chapter 1 schoolwide programs that do exist fail to demonstrate a comprehensive approach to reform. These findings indicate a need to reconsider the requirements for schoolwide programs as well as the practical knowledge available to institute truly comprehensive measures aimed at improvement.

- **The number of private school students served with Chapter 1 funds has declined since the Supreme Court's decision in Aguilar vs. Felton. The locations in which these students receive Chapter 1 instruction have shifted markedly away from private schools to public schools, vans, or other sites.**

The Supreme Court's decision that prohibits instruction by Chapter 1 teachers and aides on the premises of sectarian schools was followed by a decline of 28 percent in the number of private school students served by Chapter 1. Additionally, private schools are no longer the predominant location in which Chapter 1 services are provided to these pupils. In 1986-87, districts estimated that only 19 percent of participating private school students received Chapter 1 services on private school premises compared with 90 percent in 1984-85. Private school participants are more likely to receive Chapter 1 services in mobile vans or inside a public school than they were under Title I. A substantial number of the pupils receiving Chapter 1 instruction in private schools are served by computer-assisted techniques that do not require the presence of a Chapter 1 teacher or aide. Districts are continuing to develop responses to the Supreme Court's decision.

Comparisons of the similarity between Chapter 1 services provided to public and private school pupils on a nationwide basis suggest that in many aspects--subjects offered, grades served, instructional time, teacher qualifications--services are similar. These comparisons are limited, however, by available data. Also, evidence from district officials indicates that for some private school students, Chapter 1 services differ from those provided to public school students. Sometimes these variations are advantageous for the private school pupils (for example, smaller class sizes) and other times they are disadvantageous (for example, fewer minutes of instruction per week).

CHAPTER 4

THE ADMINISTRATION OF CHAPTER 1

The 1981 enactment of Chapter 1 reversed a decade-long trend towards more specific Federal prescriptions for Title I administration. Chapter 1 was intended to "free the schools of unnecessary Federal supervision, direction and control" and from "overly prescriptive regulations and administrative burdens which are not necessary for fiscal accountability and make no contribution to the instructional program" (Preamble P.L. 97-35). While Chapter 1's program objectives are identical to those of Title I, the new law simplified procedures for demonstrating compliance with legal standards. It also eliminated certain requirements and liberalized others. It cut back both mandated responsibilities and resources for the program's State administration.

Proponents of the new law argued that a less regulated and prescriptive program structure would allow State and local officials to increase their efforts to improve educational quality and thus bolster the interests of educationally disadvantaged children (Bell, 1981). Some analysts expressed concern, however, that the new law's ambiguities and its reduction of procedural safeguards would permit diversion of funds from the program's intended beneficiaries (McDonnell & McLaughlin, 1982).

This chapter considers these issues in the context of Chapter 1's changes in Federal standards and resulting administrative activities. It reports on research that examined how school districts are responding to certain Chapter 1 legal standards, what reductions in paperwork States have implemented, who administers the program at all levels, what these administrators do, and how administrative burden has or has not changed.

EFFECTS OF NEW CHAPTER 1 STANDARDS FOR LOCAL PROCEDURES

New Standards for School and Student Selection

Title I allowed assistance only to specifically designated schools and students, and it generally required that districts select educationally deprived students with the "greatest need" for special assistance before students with lesser educational needs. As originally enacted, Chapter 1 permitted school districts to use part of their Chapter 1 funds to serve all educationally deprived, low-income students (the "all such children" provision). Chapter 1 also permitted districts to select educationally deprived students who did not have the "greatest need" for special assistance. Few, if any, districts took advantage of this latitude before the 1983 Technical Amendments repealed the "all such children" provision and required that "those children who have the greatest need for special assistance" be included "among the educationally deprived children selected" (Section 556(b)(2)).

The National Assessment's Targeting Study and District Survey report considerable stability in the procedures used to select schools and students; changes in requirements have had modest effects on local policy and practice. One such change is the exemption of school districts enrolling fewer than 1,000 students from any school targeting requirements. Another change, contained in the 1983 Chapter 1 Nonregulatory Guidance,[39] allows variation as high as 10 percent, rather than 5 percent, in the poverty rates of schools considered to have "uniformly" high poverty concentrations. Our data indicate that some districts are using these new provisions, but that the small size of most of these districts means there is probably not a large effect on the number of schools receiving program services nationwide.

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[39] The Department of Education's Nonregulatory Guidance (NRG) is binding on the Federal government but not on States and school districts. In practice, States and school districts depend on the NRG as a guide to compliant practices.

New Standards for Supplemental Services

The idea that Federal compensatory education assistance would support supplemental services rather than basic education was a cornerstone of Title I, and continues as central to Chapter 1. Many of the program's fiscal provisions are intended to ensure that Chapter 1 funds and services are an addition to, not a substitute for, funds and services that State and local sources would otherwise provide. Specific requirements address this intent from different perspectives. Maintenance of effort requirements operate at the district level to regulate major cuts in State and local spending. Comparability requirements operate at the school level, mandating roughly equivalent State and local resources in Chapter 1 and non-Chapter 1 schools. Supplement, not supplant requirements operate at the school or student level, generally forbidding the substitution of Chapter 1 services for other services. While Chapter 1 modified each of these provisions, the basic intent of each remains as it was under Title I.

Maintenance of Effort

Chapter 1 relaxed the standard for district maintenance of State and local fiscal effort. Under Title I, districts had to maintain State and local expenditures for public education (as an overall total or on a per-pupil basis) to receive Title I funds. If there was a decline, then the district was penalized: the Title I grant was either reduced by the amount of the decrease (with a one-year waiver allowed due to "exceptional or unforeseen" circumstances) or eliminated completely. Chapter 1 contains a similar one-year waiver. Under Chapter 1, however, State and local effort may decline by 10 percent from one year to the next. Unless a district receives a waiver, the penalty for failing to maintain effort is a reduction in the Chapter 1 grant by an amount equal to the percentage decline in State and local effort below 90 percent, a penalty that is likely to be much lower than under Title I.[40]

Historically, almost all school districts have met the requirements for maintenance of effort due to inflationary increases in State and local expenditures. In 1981, only 2 percent of local Title I administrators reported problems in meeting this requirement (Advanced Technology, 1983). Further, four out of ten districts that had difficulty maintaining effort had sought and obtained a waiver from this requirement.

Given these facts, it is not surprising that none of the 20 States or 27 school districts visited in the Administration Study considered maintenance of effort to be a problem under Chapter 1. All of the districts that were visited met the Chapter 1 compliance standard. All but two would have met the earlier Title I requirements as well.

The Administration Study yielded no evidence that school districts are taking advantage of the more relaxed Chapter 1 standards in order to supplant regular State and local fiscal effort. No district that was visited appeared to base overall local expenditure levels on how much money Chapter 1 was providing. The two instances of declines in effort under Chapter 1, both under 10 percent, were attributed to state-mandated taxation restrictions and were not responses to the new Chapter 1 legislation.

Comparability

The comparability requirements of Chapter 1, like those of Title I, are intended to ensure that a district provides equivalent State and local resources to Chapter 1 schools compared to its other schools. Under Chapter 1, however, the requirements for documenting this equivalence were reduced. Under both laws, if Chapter 1 and non-

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[40] Thus, under the new law, if district effort declines by five percent beyond the 10 percent allowable reduction, the Chapter 1 allocation is cut by five percent. Under Title I, the district would have lost either all or a substantial part of its Title I allocation, unless a waiver were granted.

Chapter 1 schools are found not to be equivalent, then the district must reallocate State and local resources.

Chapter 1 permits a district to demonstrate comparability with a written assurance that it has established (1) a districtwide salary schedule; (2) a policy to ensure equivalence among schools in teachers, administrators, and auxiliary personnel; and (3) a policy to ensure equivalence among schools in curriculum materials and instructional supplies. This differs from the Title I requirement that a district submit an annual comparability report presenting data on State and local resources in Title I and non-Title I schools. Although Title I regulations specified standards for determining comparability and an allowable variance between Title I and non-Title I schools, Chapter 1 regulations do not contain standards for determining comparability. However, the June 1983 Nonregulatory Guidance stated that a district must ensure compliance with its comparability assurances, and that it therefore should retain documentation showing that resources were in fact comparable. This guidance further suggests (but does not require) that States use per-pupil expenditures, pupil/staff ratios, or both as standards for measuring comparability. (Title I regulations had required that both standards be used to measure comparability.) Given these changes in the law, the National Assessment was interested in learning the extent to which comparability calculations are continuing under Chapter 1, what these calculations consist of, and whether fewer districts are reallocating resources than under Title I.

Thirty-four States require districts to calculate comparability annually (State Survey). The remaining 16 States require only that districts retain assurances that their policies ensure the required equivalence between Chapter 1 and non-Chapter 1 schools. Some of these 16 States, however, informally encourage their school districts to continue calculating comparability.

Since most States continue to require or encourage some type of comparability calculations, the overall percentage of districts making these calculations is still rather high. Of districts that enroll 2,500 pupils or more and that contain Chapter 1 and non-Chapter 1 schools, 75 percent continue to calculate comparability (Figure 4.1). Districts with large enrollments are especially likely to calculate comparability. For example, 87 percent of districts that enroll 25,000 or more students continue to calculate the levels of State and local resources in Chapter 1 and non-Chapter 1 schools. Most districts that continue to calculate comparability do so because of State policy rather than local factors or fears of a Federal audit exception (District Survey).

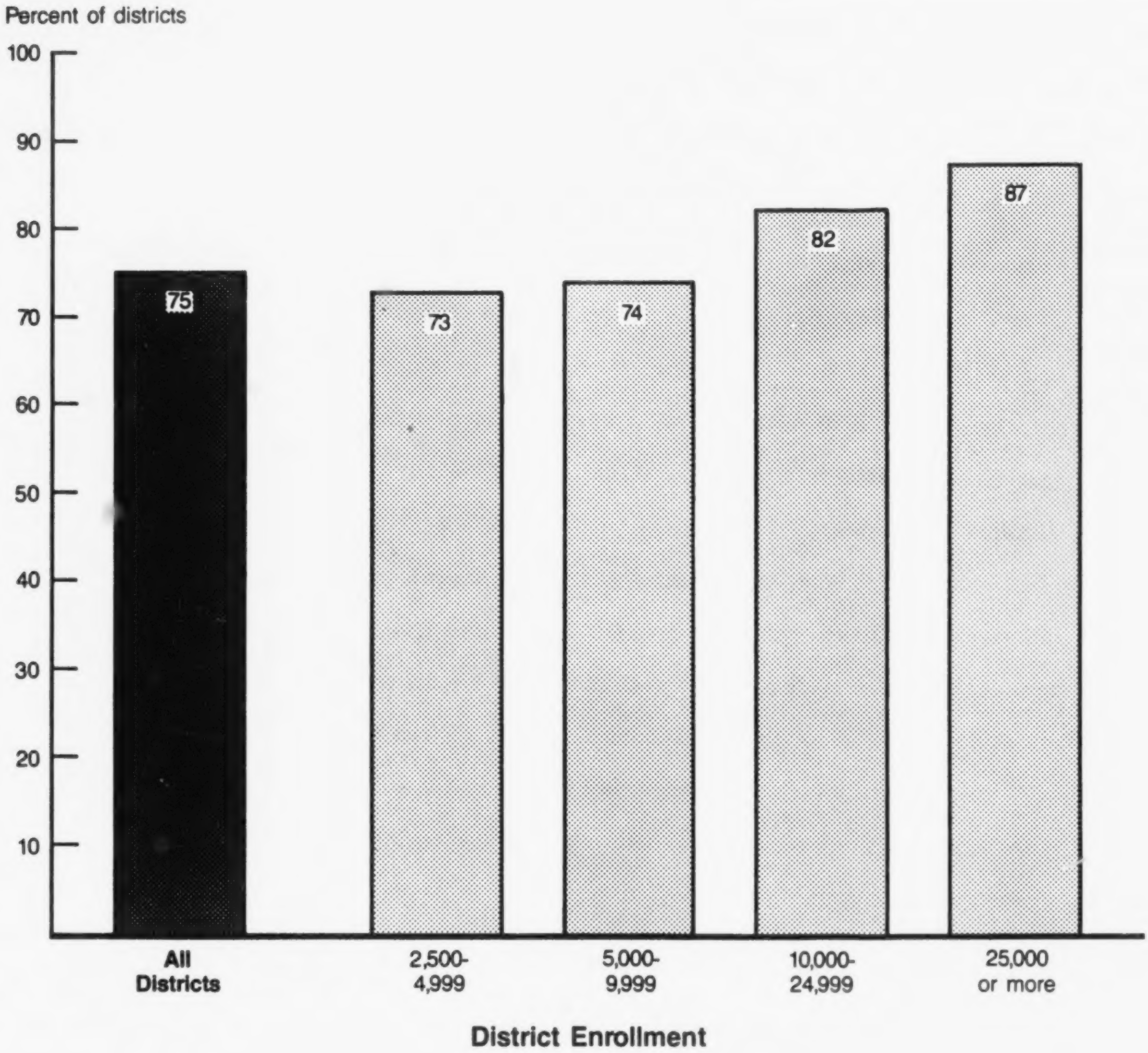
Of the districts enrolling at least 2,500 pupils that calculate comparability across Chapter 1 and non-Chapter 1 schools, 48 percent report that they compare both pupil/teacher ratios and staff salaries across schools, as was required under Title I. The remainder of these districts, however, collect less information about actual resource equivalence than they did under Title I. Thirty-six percent of these districts compare only pupil/teacher ratios and one-tenth compare staff salaries only. Seven percent use other measures.

Many States and districts permit Chapter 1 schools to have resource levels as much as 10 percent less than the average for non-Chapter 1 schools before they consider the schools non-comparable (Administration Study). This 10 percent standard, which the 1983 Nonregulatory Guidance considers acceptable, is less stringent than the 5 percent variance permitted under Title I.

Seven percent of all Chapter 1 districts enrolling at least 2,500 pupils reallocated State or local funds in 1985-86 (District Survey). In the final year of Title I, 11 percent of districts reallocated State and local resources. Among districts with enrollments of 10,000 or more students, the percentage reallocating resources declined from 16 to 8 percent. These declines may be attributable to the reduced standards for

Figure 4.1

Percent of Districts that Calculate Comparability[1] Under Chapter 1, by District Enrollment[2], 1985-86



Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86.

[1] Data are reported only for school districts with both Chapter 1 and non-Chapter 1 schools.

[2] Due to sample size limitations, data are reported only for districts enrolling 2,500 pupils or more.

Figure reads: Seventy-five percent of all districts enrolling 2,500 pupils or more with Chapter 1 and non-Chapter 1 attendance areas report they calculate comparability.

demonstrating comparability in many districts (such as comparing only pupil/staff ratios rather than both ratios and salaries) and the fact that about one quarter of all districts with Chapter 1 and non-Chapter 1 schools serving the same grade spans no longer calculate comparability.

As in the area of maintenance of effort, Administration Study researchers observed no instances of school districts deliberately exploiting the more liberal Chapter 1 comparability standards to reduce the State and local resources provided to Chapter 1 schools. However, in the districts that no longer perform comparability calculations, officials have no way of knowing whether their Chapter 1 schools actually receive comparable State and local resources.

Supplement, Not Supplant

Chapter 1 exempts certain State and local compensatory education programs from the program's supplement, not supplant requirement. Under Title I, a school district was required to provide a "fair share" of State and local compensatory education resources to its Title I schools. This meant that a district had to allocate these resources proportionately between Title I and non-Title I schools in order to comply with the supplement, not supplant requirements concerning State and local compensatory education funds.

Chapter 1 exempted qualifying State and local compensatory programs from this provision, effectively removing the requirement for a proportional allocation of State and local compensatory education resources to Chapter 1 schools. This change was intended to give States and districts greater discretion over how they allocate resources for their own compensatory programs and thus encourage more such programs.

The new exemption could affect many school districts. Nationwide, 37 percent of districts have State compensatory programs and 15 percent have local compensatory programs. A total of 40 percent of districts have one or both. Nevertheless, the Administration and Resource Allocation Studies revealed little State or local response to this Chapter 1 change.[41] Of nine States with State compensatory education programs visited in either study, none had changed its allocation rules because of the new exemption.[42] Following State policies, districts continue to allocate State compensatory education funds either to grade spans not served by Chapter 1 or to all qualifying schools and students, regardless of their receipt of Chapter 1 resources (Resource Allocation Study). State officials attribute the stability of their policies to the institutionalization of these practices under Title I and to assumptions that allocating resources in this manner is fair. Also, many districts are not aware of the exemption.

New Standards for Parent Involvement

Title I specifically required parent involvement in the administration of the program through district- and school-level advisory councils. Their purpose was to advise school districts on the design, implementation, and evaluation of Title I programs. Studies of Title I reported administrators' concerns about low parental attendance at council meetings, detailed council election requirements, and limited contributions of the councils to Title I programs (Bessey, Brandt, Thompson, Harrison Putnam, & Appleby, 1982; Advanced Technology, Inc., 1983). Studies of Title I paren involvement also emphasized the important role of district and school staff in the design and impact of parent advisory councils and their effects (Goettel, Kaplan, & Orland, 1978; Keesling, 1980). In general, researchers found limited commitment to parent councils among district and school officials. For example, one study found that districts gave councils low levels of decision-making responsibility (Keesling, 1980), while another found that parent opposition to changes in curricula or in the grades to be served did not impede such changes (Advanced Technology, Inc., 1983).

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[41] These findings are similar to those of the General Accounting Office in its recent investigation of this and other fiscal allocation issues (GAO, 1987).

[42] One State developed a new compensatory education program after enactment of Chapter 1 and consulted with Federal officials to ensure that the structure of the new program would permit it to be exempted from supplement, not supplant requirements.

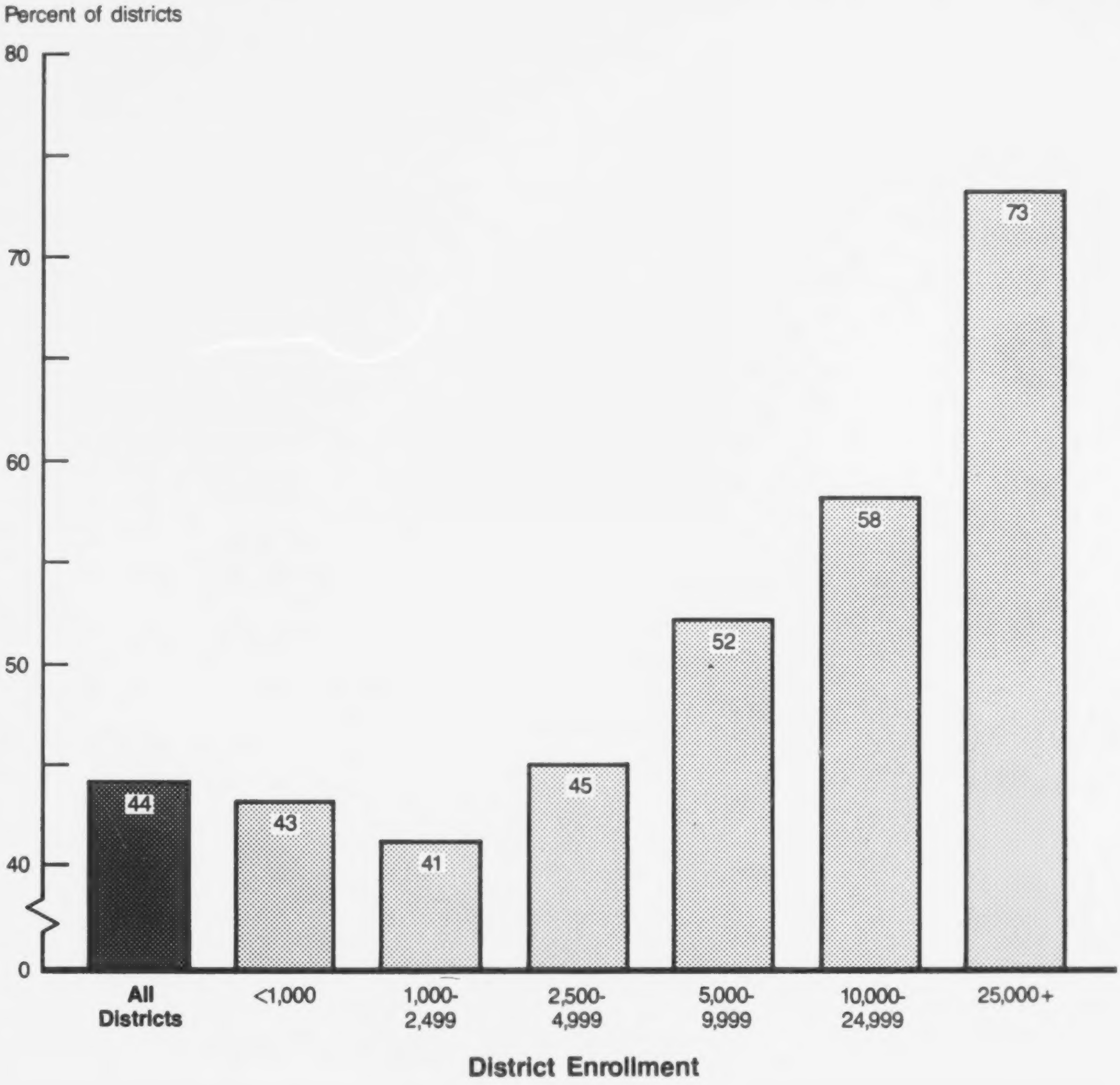
Chapter 1 eliminated the requirements for district advisory councils (DACs) and school advisory councils (SACs). In their place, the new law mandated that programs be "designed and implemented in consultation with parents" (Section 556(b)(3)) and that school districts hold annual meetings "to which all parents of eligible students shall be invited" for the purpose of explaining the Chapter 1 program and activities (Section 556(e)). Regulations issued in May 1986 required districts to develop written policies for ensuring adequate parent participation in program design and implementation.

Eliminating the requirement for parent advisory councils affected the administrative policies of nearly all States and most school districts. Only five States continued advisory council requirements on their own, retaining either the Title I requirements or similar rules. Nationwide, less than half of all districts have continued DACs, while formal SACs exist in roughly 40 percent of all Chapter 1 schools.

As shown in Figure 4.2, DACs were most likely to be continued in the nation's largest districts and least likely to be maintained in the smallest ones. This pattern reflects the fact that, in many large urban districts, long-established ties link the program to activist community leaders and groups (McLaughlin, Shields, & Rezabek, 1985). In these districts, local administrators value parent councils both as structures for channeling local protest and as program advocates within the school district (Administration Study). In contrast, parent groups are less likely to organize themselves to change district practices in rural areas. Especially in poor rural areas, program administrators reported finding parents less likely to participate in formal

Figure 4.2

Percent of Districts Retaining Chapter 1 District Advisory Councils (DACs) by District Enrollment[1], 1985-86



Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86.

[1] Includes districts in all 50 States. Forty-five States eliminated formal DAC requirements.

Figure reads: Nationally, 44 percent of districts retained District Advisory Councils (DACs); 43 percent of districts enrolling less than 1,000 students retained DACs.

governance structure or make substantive contributions to local programs (McLaughlin et al., 1985).

Recent research suggests that parent involvement is more closely related to local factors than to Federal requirements. Under Title I, the effectiveness of parent councils in promoting strong parent involvement seems to have depended on factors that include traditions of community involvement in education and commitment to a strong parent role among administrators and teachers (Program Design Study; Jay & Shields, 1987; McLaughlin & Shields, 1986). In some local contexts, district and school administrators were already committed to involving parents and saw the Title I councils as a way to increase parent participation in all facets of Title I programs. In other locations, district and school personnel complied with the procedural requirements for council meetings, dissemination of materials, and application sign-offs without making a commitment to strong parent involvement in Title I programs. Reflecting these differences in local context, administrators in districts where DACs were retained were considerably more likely to report high levels of parent involvement than in districts where DACs were eliminated (District Survey).

According to Chapter 1 administrators, parent involvement in the program has been largely stable but has diminished in a substantial minority of districts. Figure 4.3 indicates that most Chapter 1 coordinators reported no change in parent involvement from Title I to Chapter 1.[43] However, of those administrators who reported that parent involvement changed from Title I to Chapter 1, most reported a decrease. For example, four times as many administrators reported parents were more involved in

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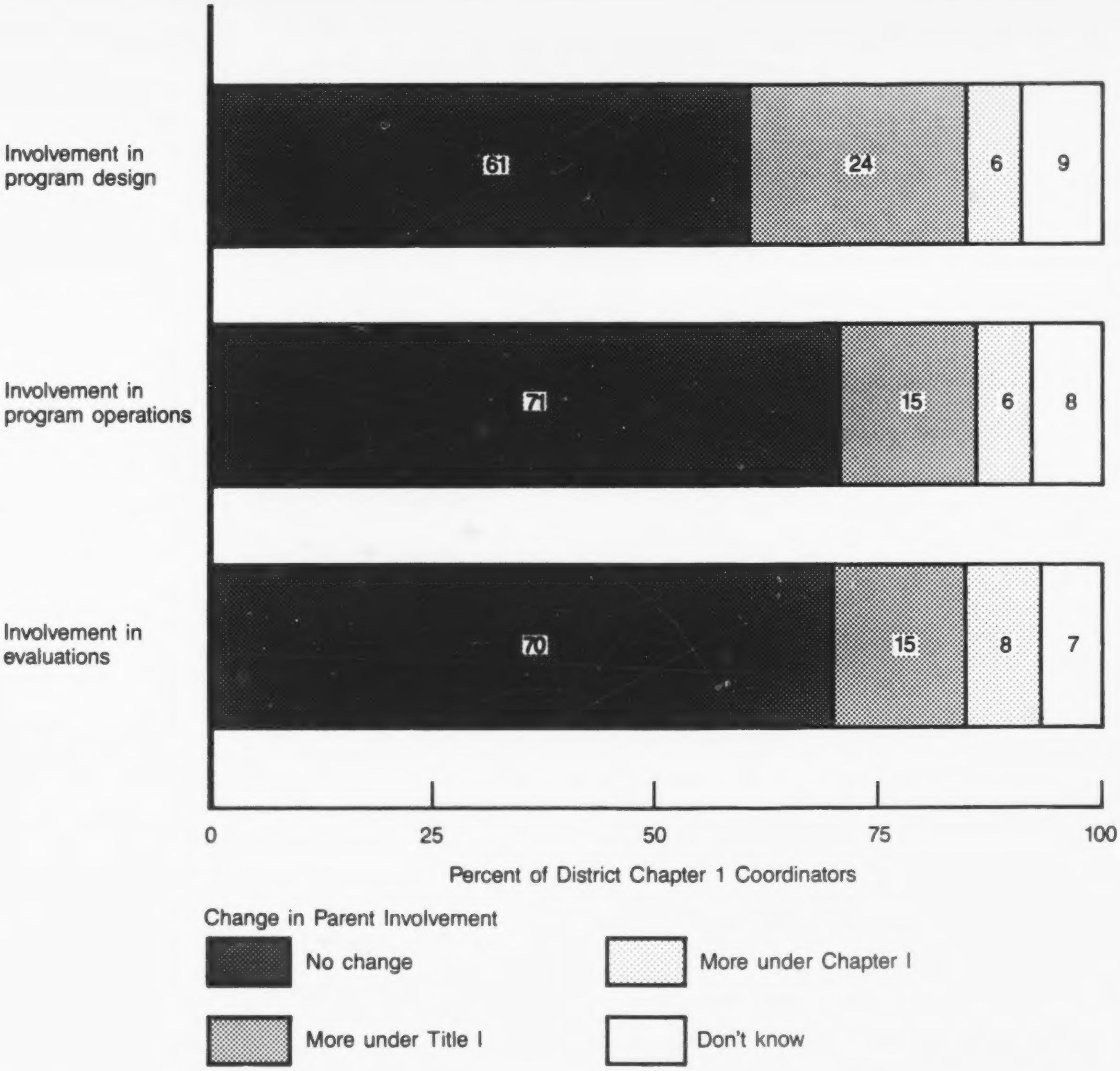
[43] Because many Chapter 1 coordinators viewed parent councils as burdensome (Advanced Technology, Inc, 1983), administrators might underestimate declines in levels of parent involvement since Title I. Interviews with parents might indicate more change. However, because of the technical difficulties and costs of drawing a representative sample of Chapter 1 parents, the National Assessment did not conduct a nationwide survey of Chapter 1 parents.

Figure 4.3

Changes in Parent Involvement Under Title I and Chapter 1, as Reported by District Chapter 1 Coordinators, 1985-86



Source: District Survey conducted for the Chapter I National Assessment, 1985-86.

Figure reads: Sixty-one percent of district Chapter 1 coordinators report no change in the involvement of parents in program design under Chapter 1 as compared with Title I, but 24 percent indicate more involvement under Title I.

program design considerations under Title I (24 percent) than under Chapter 1 (6 percent).

Furthermore, some administrators supporting an active parent role found it harder to sustain district commitment to parent involvement under Chapter 1 than under Title I (Administration Study). Administrators attributed these difficulties less to the elimination of the council requirements (some of these districts in fact retained the Title I parent council requirements) than to the message the Federal policy change sent about the importance of parent involvement. The Administration Study found that State and Federal policies under Title I appeared to serve as enabling mechanisms in districts that were interested in parent involvement. Administrators in these districts--interviewed before the 1986 rules required written district policies for ensuring parent involvement--reported that the reduced requirements for parent involvement under Chapter 1 weakened the legitimacy of their activity. As a result, the change from Title I to Chapter 1 led to staff cuts and budget reductions; parent activities in some districts had their funds halved. These administrators also said that they now had less political clout in working with reluctant principals. Still, because the newest regulations take a step toward more specific requirements, we do not know whether the trends noted here will continue in the future.

New Standards for Evaluation

Chapter 1 retained the Title I requirement that school districts evaluate their programs at least once every three years and assess whether performance gains are sustained. However, whereas Title I required districts to use Federally developed evaluation models, ECIA prohibited any Federal regulations "relating to the details of . . . evaluating programs and projects by . . . local educational agencies" (Section 591(b)). The 1983 Technical Amendments added a provision requiring States to conduct their own Chapter 1 program evaluations at least every two years and to collect data on Chapter 1 participants' race, age, and gender. The Technical Amendments also reinstated, although in slightly less prescriptive langauge, a Title I provision that districts consider their evaluation results in improving their programs.

Although they can now take any approach they choose, the majority of States and districts continue to use the evaluation models developed under Title I. Thirty-nine States formally require the use of one of the three Title I models, and an additional seven report that all their school districts use the models despite the absence of a formal requirement. Thirty-six States require districts to submit evaluation data annually, while the others require biennial or triennial evaluation reports. According to the District Survey, about 90 percent of all school districts use one of the Title I evaluation models, and about the same proportion continue to submit evaluations as often as before.

The biggest changes in evaluation procedures are the collection of additional demographic data in response to the 1983 Technical Amendments and the shift among some districts to annual testing cycles from fall-spring cycles (Administration Study; McLaughlin, et. al., 1985). The change in testing cycles improves the quality of evaluation data by permitting measurement of effects over a longer time period, as discussed in the National Assessment's second report to Congress. This shift reflects encouragement from ED and the federally funded Chapter 1 Technical Assistance Centers.

The general continuation of evaluation procedures in Chapter 1 despite reduced Federal mandates does not mean that evaluation practices are identical to those under Title I, nor that they will continue indefinitely. The number of States agreeing voluntarily to report their program evaluation data in a uniform format has declined since enactment of Chapter 1. Federal officials have also noted problems in the technical quality and completeness of these recent data (Reisner & Marks, 1987).

The extent to which districts use evaluation results to improve their Chapter 1 projects depends heavily on local factors, particularly the presence of skilled evaluation staff (who are most often found in the larger districts) and a commitment to evaluation as a program improvement tool (Administration and Program Design Studies). In the absence of these factors, a Federal requirement to use evaluation for program improvement purposes appears to have little effect. Although States vary in their oversight and assistance concerning evaluation use, the Administration Study found no relationship between these State activities and local evaluation use. By themselves, the Federal requirements for evaluation of the program do little more than assure that some evaluation is done and that the resulting information is available for decisionmaking, if local staff choose to use it (Program Design Study).

EFFECTS OF REDUCED APPLICATION AND REPORTING REQUIREMENTS

Chapter 1 continues to require that a school district apply to its State for program funds. In several parts of the application, however, States now have the option of requiring only an "assurance," which is a signed statement assuring that the district will comply with the program standards. Such assurances may replace detailed written descriptions of local policy and practice in the application or other records. Although it reduces paperwork, the use of assurances limits a State's knowledge about how school districts adhere to Chapter 1 requirements. Especially when these requirements are complex and detailed, the use of assurances raises the possibility that school districts might not be as diligent in maintaining compliance as when they prepared specific documentation under Title I.

To learn more about State and local practice in the use of assurances, the National Assessment's Survey of State Chapter 1 coordinators asked whether they had replaced documentary requirements with assurances in five major areas--school selection, student selection, program evaluation, comparability, and parent involvement.

As indicated in Table 4.1, most States reported that they continue to require school districts to document their compliance with Chapter 1's legal standards. While some States have shifted to collecting assurances in the areas of parent involvement and comparability, only a very few have done so in the areas of school selection, student selection, and evaluation. The biggest change from past practice has occurred in the documentation of parent involvement, where 13 States replaced all detailed application requirements with assurances.[44] With regard to comparability, although 16 States shifted to requiring only assurances, some of them continue to encourage school districts to document compliance. According to the Administration Study, many States that only ask for assurances on applications continue to review local documentation of comparability as part of monitoring visits to districts.

In the other three areas surveyed, State requirements for documenting compliance have changed little. Under Chapter 1, school districts continue to calculate and report on their school and student selection cutoffs and evaluation scores as they did under Title I, and State staff continue to review these submissions for compliance with applicable Federal and State provisions.

States are somewhat less likely to object to local applications under Chapter 1 than under Title I. In the District Survey, 9 percent of local Chapter 1 coordinators said the State had raised objections to some aspects of their last program application. In 1981-82, the last year of Title I, 16 percent of local coordinators responding to the same question reported State objections. This reduction from 16 to 9 percent may result in part from the move to assurances, although State staffing cuts under Chapter 1 or possible improvements in local compliance could also play a part in this change.

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[44] The regulations issued in 1986 may cause States to shift back to requiring more detailed application narratives for parent involvement, however.

Table 4.1

Number of States That Replaced Requirements for Documentation with Assurances Under Chapter 1, in Five Areas, 1985-86

Policy Area	**Number of States Reporting**	**Number of States that Replaced Documentation Requirements with Assurances**
School selection	47	2
Student selection	45	2
Evaluation	46	1
Comparability	50	16
Parent involvement	50	13

Source: State Survey conducted for Chapter 1 National Assessment, 1985-86.

Table reads: Of 47 State Chapter 1 coordinators reporting on their school selection policies, two indicated that they replaced requirements for documentation with assurances.

ORGANIZATION AND STAFFING OF CHAPTER 1 PROGRAMS

Over 9,000 full-time equivalent (FTE) school district employees, several hundred State personnel, and about 50 Federal officials play a direct part in administering the nation's Chapter 1 programs. This section describes their activities and changes in the intensity and scope of these efforts since enactment of Chapter 1.

Federal-Level Organization and Staffing

Most direct, day-to-day Federal administrative activities in Chapter 1 take place in ED's Office of Compensatory Education Programs (CEP), the head of which reports to the Assistant Secretary for Elementary and Secondary Education. CEP currently administers the Chapter 1 Basic Grants program as well as the much smaller Chapter 1 Neglected or Delinquent (N or D) and Follow Through programs. The administrative responsibilities of this office include: (1) awarding grants to States and school districts; (2) developing regulations, guidelines, and policy interpretations regarding State and local program practices; (3) monitoring these practices through site visits; and (4) providing technical assistance and information to grant recipients. Since October 1985, CEP has consisted of a Director's Office and two operational divisions--one responsible for grant administration, policy formulation and interpretation, and technical assistance; and the other responsible for monitoring and compliance.

Between 1981 and 1986, the number of Federal staff administering Chapter 1 declined sharply. The extent of the decline cannot be estimated precisely because the office was reorganized several times over this period and previously administered programs other than Chapter 1 Basic Grants. Table 4.2 presents staffing comparisons across four separate organizational structures between April 1981 and December 1986.

The organizational unit responsible for compensatory education programs, including Title I Basic Grants, consisted of 95 FTE professional staff between April 1981 and February 1982. From October 1985 to December 1986, the comparable unit employed 51

Table 4.2

Numbers of Federal Staff Positions[1] and Organizational History of the Office of Compensatory Education Programs, April 1981 - December 1986

Office or Division	April 1981-February 1982	February 1982-September 1983	September 1983-October 1985	October 1985-December 1986
Office of the Director	4	6	5	9
Grants, Policy, and Administration	13	13	24 ("Program Support")	16
Program Development	23	20		
Program Review	33	16 ("Program Support")	30 ("Chapter 1 and Related Programs")	26
Follow Through	22	20		
Migrant Education	—	—	17	—
Total	**95**	**75**	**76** (Less Migrant Education = 58)[2]	**51**

Source: Funkhouser, J.E., J. Michie, & M. Moore. Federal Administration of Chapter 1, ECIA - Staffing and Financial Support Substudy. Decision Resources Corporation, January 1987.

[1] Full-time permanent positions.

[2] This number excludes Migrant Education Staff as well as one staff member in the Division of Program Support who worked on Migrant Education.

Table reads: The total number of full-time permanent staff positions assigned to the Office of the Director of Compensatory Education Programs in the U.S. Department of Education increased from 4 in April, 1981 to 9 in December, 1986.

FTE staff, representing a decline of about 46 percent. Reductions took place among staff with compliance monitoring responsibilities and those providing special expertise in areas such as parent involvement, curriculum, needs assessment, and school selection. The organization kept its specialists in the provision of services to private school students and in program improvement.

Of the 51 staff working in CEP in late 1985, about half had also been employed there in 1981, although CEP did not employ all of them continuously over this time. Many of the others moved to CEP from other units as a result of being "bumped" by more senior employees during one of the two "Reductions in Force" (RIFs) during this period.

The Federal staffing reductions in Chapter 1 administration were not unique to this program. Between fiscal years 1981 and 1985, other ED formula grant programs underwent comparable reductions.[45] According to Department officials, the Chapter 1 reductions were generally part of Department-wide efforts to reduce the size and increase the efficiency of the administrative bureaucracy (Funkhouser, Michie, & Moore, 1987). Enactment of Chapter 1, with its goal of reducing administrative burden, provided further impetus and justification for reductions within CEP.

State-Level Organization and Staffing

A typical State Chapter 1 office contains a director, program generalists, and program specialists. The program director (sometimes known as the program coordinator) is primarily responsible for ensuring that school districts comply with the program's legal standards. His or her responsibilities include reviewing and approving local program applications and reports, monitoring school districts for compliance, interpreting Federal compliance standards, and advising school districts about program management. Most State program directors are veterans, averaging 13 years with the program and over seven in their current position.

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[45] In ED as a whole, full-time employment decreased from 6,849 in fiscal 1981 to 4,526 in fiscal 1986.

Program generalist staff usually oversee all local Chapter 1 programs in a geographic area of the State. They work directly and continually with local program officials, often on site. Among their activities are reviewing and approving local program applications for the school districts in their jurisdiction. Additionally, program generalists typically arrange and conduct monitoring visits, coordinate State technical assistance efforts, and provide informal policy guidance.

Program specialist staff are responsible for a particular programmatic area, such as fiscal management, curriculum, parent involvement, or program evaluation. Some specialist activities are concerned with compliance, such as the review of local financial and comparability reports by fiscal specialists. Other activities, particularly those of curriculum and parent specialists, consist of providing technical assistance to districts in their fields of expertise.

When Chapter 1 reduced the State administrative subsidy from 1.5 to 1.0 percent of State Chapter 1 allocations, the States reduced their staffing levels, as Table 4.3 indicates.[46] Total FTE staff for Chapter 1 State administration declined by about 31 percent between 1981-82 and 1985-86. Program generalists and specialists declined in number at about the same rate, with cuts of 29 and 28 percent respectively. Roughly seven of ten nonsecretarial employees working in Chapter 1 administration are program generalists, a figure that has remained constant despite staffing losses. Within the specialist categories, auditing and fiscal personnel continue to dominate, followed by specialists in evaluation, subject areas, and, finally, parent involvement. In the area of parent involvement an already small number of specialists was greatly reduced.

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[46] States have not always received the subsidy authorized in the law. In fiscal 1981 they received 1.1 percent of the total Title I appropriation. Since fiscal 1985, their appropriation for administration has been less than 1 percent.

Table 4.3

Changes in Number of State Education Agency (SEA) Staff Under Title I and Chapter 1[1]

	Number of Positions (in full-time equivalents (FTEs))		Percent change
Functions	Title I (1981-82)	Chapter 1 (1985-86)	(1981-82 to 1985-86)
Generalist[2]	466	330	−29
Specialist[3]	157	113	−28
Subject specialist	32	26	−19
Parent specialist	10	3	−70
Evaluation specialist	32	27	−16
Audit/Fiscal specialist	83	57	−31
Other[4]	46	21	−54
Secretarial	212	141	−33
Total	881	605	−31

Source: State Survey conducted for the Chapter 1 National Assessment, 1985-86.

[1] Data were collected from 49 SEAs.

[2] These are staff who have general oversight responsibilities for Chapter 1 operations in particular school districts. This number includes the State Chapter 1 director.

[3] The number of States reporting specialist functions varies.

[4] Examples include information writer, officer manager, administrative assistant, and attorney.

Table reads: Nationally, State officials reported 466 FTE staff performing generalist functions during 1981-82 and 330 FTE staff performing these functions in 1985-86. This represents a 29 percent decline in the number of FTE staff performing these functions.

Some States completely eliminated particular specialist categories under Chapter 1, with parent specialist staff being eliminated most frequently. Of 16 States that had parent specialists under Title I, nine reported their elimination under Chapter 1.[47]

District Organization and Staffing

Local administrative structures depend on the size of the Chapter 1 project. In small districts, the coordinator responsible for all Chapter 1 administrative activities tends to work part-time on the program and to have other major instructional or administrative responsibilities as well (District Survey and Administration Study). Program management tasks in these districts are usually limited because of the projects' small size.

In the larger districts visited for the Administration Study, Chapter 1 programs have a full-time (or nearly full-time) program director and other professional staff. As at the State level, the administrative staff may include monitors, who visit schools to assess program compliance, and specialists in fiscal matters, curriculum, parent involvement, evaluation, and information dissemination. The largest districts may employ staff in all these areas. The Chapter 1 director manages these activities, including oversight and documentation of compliance with Chapter 1 standards and liaison with the State and other departments of the school district. He or she may also supervise Chapter 1 instruction.

Unlike State administration, local program administration has no separate Federal subsidy. Most districts spend part of their Chapter 1 grant on program administration, although very small districts often manage Chapter 1 with staff who are paid totally from local funds. On average, 4 percent of Chapter 1 local grants support salaries for program administrators, according to the District Survey. This figure was the same in the last year of Title I.

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[47] One State created a parent specialist function under Chapter 1, so a total of eight States reported such staff in 1985-86.

The shift to Chapter 1 has coincided with reductions in staffing for particular functions. The total number of FTE staff carrying out the functions listed in Table 4.4 declined modestly (13%) between 1981-82 and 1985-86. Staffing changes varied by functional area however, with the number of FTE program coordinators declining much less than specialist staff in parent involvement, evaluation, and curriculum.[48] The apparent increase in fiscal specialists, shown in Table 4.4, was not statistically significant.

STATE AND FEDERAL OVERSIGHT AND ASSISTANCE ACTIVITIES

Changes in Federal Program Management

Until ED issued the June 1983 Nonregulatory Guidance and Congress passed the Technical Amendments later that year, there was virtually no guidance concerning Federal expectations for State and local administration of Chapter 1. As a result, some States that had previously depended on ED for such guidance were forced to rely on their own best judgments. The Administration Study suggests that a substantial number of States continued to rely on the old Title I requirements.

Since 1983, ED has issued formal and informal Federal policy interpretations more frequently, thus further developing the Chapter 1 legal framework. This framework is considerably less detailed than its Title I counterpart, however.[49] When ambiguities occur, State and local officials tend to rely upon past policies, primarily because they fear the possibility of future Federal audit exceptions (Administration Study).

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[48] These national estimates of specialist staffing changes were heavily driven by the experiences of large districts (those over 10,000), who employ about half of all such staff nationwide.

[49] A review of the internal consistency of selected aspects of the current Chapter 1 legal framework is contained in Gaffney and Schember (1987).

Table 4.4

Changes in Number of District Staff Performing Selected Functions[1] Under Title I and Chapter 1

Function	Number of Staff (in full-time equivalents (FTEs)) Title I (1981-82)	Chapter 1 (1985-86)	Percent Change (1981-82 to 1985-86)
Coordinator	3,863	3,625	–6
Parent Specialist	703	349	–50
Evaluation Specialist	552	363	–34
Curriculum Specialist	1,807	1,422	–21
Fiscal Specialist	317	516	+63
Total	7,242	6,275	–13

N = 1,655 (sample of districts under Title I), 1,866 (sample of those under Chapter 1). Table values based on weighted data.

Sources: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology Inc., 1983).

[1] Functions listed do not include all Chapter 1-related staff in school districts because of difficulties in obtaining comparable data for all functions for both Title I and Chapter 1. Therefore, the total number of staff shown here includes only those staff performing functions listed in this table.

Table reads: Nationally, district officials reported that there were 3,863 FTE Title I coordinators during 1981-82 compared to 3,625 during 1985-86. This represents a 6 percent decline nationwide in the number of FTE district Chapter 1 coordinators.

Since 1970, the Federal program office has conducted Title I/Chapter 1 program reviews. Designed primarily to ensure that States and school districts comply with the program's legal standards, program reviews generally consist of one-week site visits to a State department of education and selected school districts in the State. After each visit, the Federal site visitors prepare a report to the State that documents questionable practices and outlines required or recommended corrective actions.

About four or five Federal officials visited each of 43 States for program reviews during the last year of Title I. In 1986, the number of staff members conducting each program review had declined to two or three, and the number of program reviews had been reduced to 24 (Moore & Pontzer, 1987). Despite staff reductions, the scope of the reviews did not materially change during this period, and the Administration Study did not uncover any direct, short-term effects of the reduction in the Federal presence. In at least one State, a Chapter 1 Federal program review resulted in greater State prescriptiveness and attention to compliance concerns (Administration Study).

Under Chapter 1, ED has increased its attention to program improvement. Federal initiatives to improve local program quality have included awarding small grants to SEAs for designing quality improvement approaches, recognizing 246 particularly successful local Chapter 1 projects, and directing the Chapter 1 Technical Assistance Centers to emphasize instructional improvement in their workshops and products.

This Federal emphasis has had varied results (Administration Study). For example, one State already committed to improving program quality used the Federal initiatives as a springboard to launch its own program improvement efforts. Two others asked staff members from the successful local projects to present workshops at summer conferences. At the same time, several of the States visited seemed unaffected by the

Federal initiatives. The attention States devote to program improvement depends on State priorities, the Adminisration Study found.

Changes in State Program Management

Chapter 1 generally eased requirements for State reporting, oversight, and technical assistance. Unlike Title I, it contains no explicit requirements for State monitoring or technical assistance. Although Title I had statutory standards for State monitoring and a requirement for States to submit monitoring and enforcement plans at least once every three years, Chapter 1 eliminated both of these provisions. Several sections of the current legal framework suggest a State responsibility for monitoring local practice, however. A provision of the Chapter 1 regulations, for example, requires States to ensure that agencies receiving Chapter 1 funds comply with all provisions of the law and regulations (34 CFR Section 204.13(a)). Chapter 1 also eliminated a Title I provision requiring States to provide technical assistance to districts in such areas as application preparation, program planning, evaluation, and program implementation.

Requirements for State and local auditing have become more stringent under Chapter 1 as a result of an across-the-board change in requirements for auditing Federal grants.[50] Fiscal and compliance audits of local Chapter 1 programs were generally required at least once every three years under Title I, while under Chapter 1 States and districts must audit their programs in accordance with single organization-wide auditing procedures at least once every two years. The audits must be conducted by independent auditors and must cover financial transactions and legal compliance.

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[50] When Chapter 1 was initially passed, Federal regulations required States to implement the organization-wide auditing requirements contained in Attachment P to OMB circular A-102. Similar requirements for organization-wide auditing were subsequently promulgated in the Single Audit Act of 1984. ED required compliance with the provisions of that act for any State or local government fiscal year beginning after December 31, 1984.

States are responsible for ensuring that districts conduct the audits, that the reported spending of Federal funds is consistent with applicable laws and regulations, and that corrective action follows within six months of receiving an audit report finding of noncompliance.

Monitoring

State monitoring, which has long been a key mechanism for ensuring local Chapter 1 compliance, varies substantially in frequency, intensity, and focus both within and across States. In the 20 States visited in the Administration Study, larger districts and "problem" sites typically receive more frequent or lengthy monitoring visits than other districts in the same State. The frequency and length of monitoring visits vary across States as well. While some of the sampled States visit a typical district once every three years for an average of a person day or less, other States visit the bulk of their districts annually or biennially and spend an average of two to six person days on site.

Several factors appear to account for this variability. States differ substantially in the number of districts they contain, in the size of their Chapter 1 administrative subsidies, and in the ratio of administrative resources to districts. Rural States--with small Chapter 1 allocations and, therefore, small State administrative subsidies, but many school districts--lack the administrative capacity to conduct frequent or lengthy monitoring visits. This description fits all of the States in the Administration Study reporting triennial monitoring cycles with average visits of a person day or less.

Although administrators in virtually all of the sample States said that checking compliance with legal requirements is their principal monitoring objective, their methods differ. Some limit their efforts to reviews of documents and interviews with administrators, while others observe classroom activities, interview teachers and principals, and attend parent council meetings.

In general, State personnel spend less time monitoring local Chapter 1 projects than they spent under Title I. As seen in Figure 4.4, the frequency of site visits has declined under Chapter 1 for districts of all sizes. Forty-four of the 50 SEAs reported some reductions in the frequency of monitoring. Of these, about 75 percent attributed reductions to cutbacks in the Federal subsidy rather than to other possible reasons (such as a State judgment that Chapter 1 programs need less monitoring).[51]

While the change to Chapter 1--in particular, the reduced Federal set-aside for State administration--reduced the frequency and intensity of State monitoring visits, the activities and objectives of State monitors remain the same. All continue to require that compliance issues be addressed first, before issues of program quality.

Few local districts perceive reductions in the thoroughness of State monitoring. Data from the Chapter 1 Oversight Survey indicate that only 10 percent of all districts consider State monitoring reviews to have been more thorough under Title I than they are under Chapter 1. This survey also found that three-fourths of all local Chapter 1 coordinators reported State monitoring reviews within the previous 18 months, and 92 percent reported at least one such visit over the previous 3.5 years. Visits to districts in the Administration Study also indicate that local staff do not perceive much change in State monitoring.

Auditing

State fiscal and compliance auditing of local Chapter 1 programs changed substantially under Chapter 1, due to federally required implementation of single audit procedures. In the last year of Title I, only a few State coordinators had begun to implement single auditing requirements (Bessey et. al., 1982). By 1984-85, 38 States reported implementation, with two others beginning the process (Dougherty, 1985).

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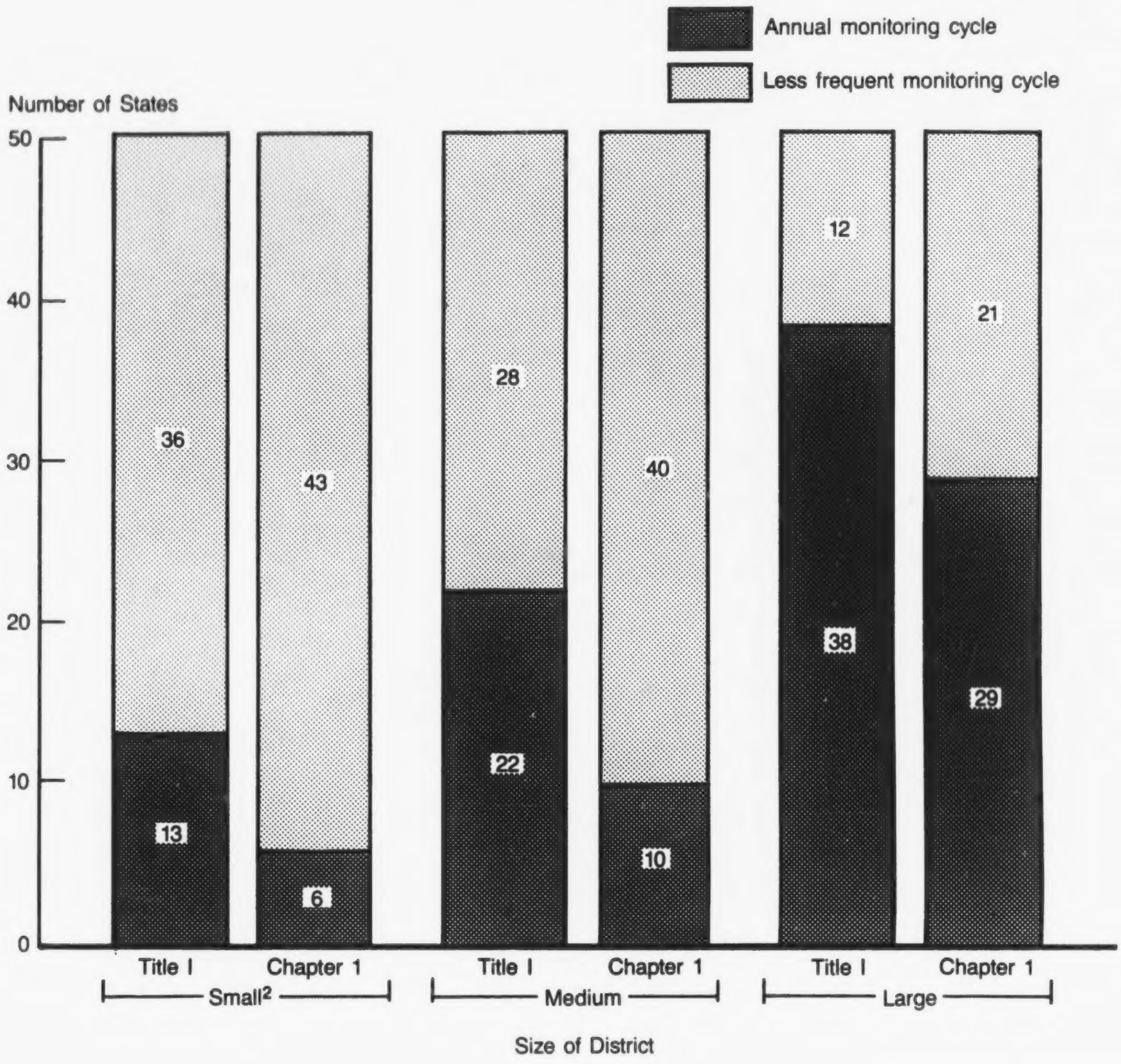
[51] Because State administrators would naturally prefer to see their subsidy increase, their responses on this point and related points may exaggerate the effects of the cutback in the subsidy.

Figure 4.4

Frequency of SEA Monitoring of Districts Under Title I and Chapter 1, by Size of District[1]



Source: 50 State Survey of Chapter 1 Coordinators conducted for the Chapter 1 National Assessment, 1985-86.

[1] Each SEA used its own definition of small, medium, and large districts.

[2] One SEA was unable to provide information on monitoring frequency of small districts.

Figure reads: Under Title I, 13 State education agencies (SEAs) reported monitoring small districts annually and 36 reported less frequent monitoring. Under Chapter 1, 6 SEAs report annual monitoring of small districts while 43 report less frequent monitoring.

Data from the Administration Study also indicate widespread implementation of single auditing procedures.

The move to single audits brought with it three major changes in State oversight policy. First, the frequency of required audits increased from at least once every three years under Title I to every other year under single audit provisions. Second, the responsibilities of auditors expanded to include all Federal programs, not just Title I. Auditors are now expected to draw a sample of "transactions" across programs to test the adequacy of the agency's accounting and administrative control systems. In addition, for a subset of large programs including Chapter 1, they must assess whether the program complies with Federal regulatory standards. Finally, new standards for auditor independence have required the recruitment of new auditors, with local certified public accountants rather than State personnel typically conducting audits.

Some of the effects of single auditing for Chapter 1 are clear. Districts are audited more frequently now than under Title I. During the last year of Title I, 66 percent of local Chapter 1 coordinators reported having been audited by the State over the previous 3.5 years, according to reanalyses of data from the District Practices Study (Advanced Technology, Inc., 1983).[52] This percentage grew to 84 percent in 1985-86, according to the Chapter 1 Oversight Survey. Moreover, current audits are less likely to be restricted to fiscal concerns than was the case under Title I. About 25 percent of local program coordinators reported in 1981-82 that their last audit covered only fiscal matters, while just 15 percent of coordinators responded this way in 1985-86.

Among school districts in a national sample asked to compare the thoroughness of Chapter 1 audits with those conducted under Title I, about half considered the two to be "about the same" (Chapter 1 Oversight Survey). Of those who perceived a difference, most considered Chapter 1 audits more thorough than those under Title I.

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[52] These figures are derived from reanalyses of the original data base conducted for the National Assessment.

Changes in State oversight under Chapter 1 appear to have had few local effects thus far (Administration Study). In general, local coordinators do not perceive reduced compliance responsibilities under Chapter 1 compared with Title I. In fact, many reported that continued concerns over avoiding Federal audit exceptions in the less regulated environment of Chapter 1 have heightened their anxiety about running a legal program. Most local coordinators appeared to welcome a State oversight role both as a "visible presence," which reminds local officials to obey the law, and as assurance that their actions are within the program's regulatory boundaries.

Technical Assistance

Unlike Title I, Chapter 1 does not require States to provide technical assistance and support to school districts. States vary in both their staff commitments to technical assistance and the objectives of such assistance. In the 20 States sampled in the Administration Study, reported estimates of the time State Chapter 1 staff spend on technical assistance ranged from 13 to 50 percent. According to the State Survey, most States reportedly offer technical assistance during their site monitoring visits; nearly all say they consult with at least some of their districts for technical assistance purposes (in addition to brief telephone consultations); and most sponsor annual conferences or workshops that have some technical assistance focus.

When questioned shortly after the enactment of Chapter 1, some State administrators expressed hope that the law's relative deemphasis on regulation would prompt greater State attention to program improvement (Bessey, et al., 1982). A few years later, assistance in complying with program requirements is a universal feature of State technical assistance efforts, but assistance for improving program quality is not. All 50 SEAs in the State Survey reported giving assistance in 1985-86 to aid districts in complying with Chapter 1 regulations and completing program applications. However, 11 States reported that they provided no technical assistance for program improvement during 1985-86, and 29 indicated that they gave no assistance in curriculum. State-sponsored "special purpose" conferences to improve specific aspects of local programming are relatively infrequent. During 1985-86, seven out of 50 States reported holding Statewide conferences on program improvement; States held nine conferences related to evaluation and three related to parent involvement.

State reports of changes in their overall levels of technical assistance vary widely. Of a sample of 20 State coordinators, seven reported declines in the total amount of time spent providing technical assistance since the enactment of Chapter 1, five reported increases, four reported that technical assistance remained about the same, and four State coordinators did not know (Administration Study). On the specific issue of assistance for program quality, nine State officials reported increases, four reported decreases, and seven did not know. Some administrators maintain that the reduction in the State administrative set-aside eliminated resources that they might otherwise have used for program improvement.

In general, district staff find their States helpful to them, but somewhat fewer feel this way under Chapter 1 than in the last year of Title I (District Survey). As Table 4.5 shows, districts reporting help from States in meeting requirements or improving their Chapter 1 projects declined from 67 percent in 1980-81 to 58 percent in 1984-85. Districts perceive the greatest reduction of State technical assistance in parent involvement and, to a lesser extent, evaluation--presumably reflecting reduced Federal requirements and reduced State staff in these areas. The percent of administrators who received State help in improving instructional quality did not change during the period.

Table 4.5

Perceptions of SEA Helpfulness in Selected Program Areas Under Title I and Chapter 1, as Reported by District Coordinators[1]

	Percent of District Coordinators Under	
	Title I (1980-81)	Chapter 1 (1984-85)
SEA was helpful in any aspect of the program	**67**	**58**
SEA helpful in:		
Application preparation	48	36
Evaluation	46	30
Parent involvement	32	13
Program management and budgeting	32	22
Needs assessment	31	24
Selection of students	28	17
Improvement of instructional quality	25	25
Supplement, not supplant	19	13
Comparability	16	12
Coordination with other programs	15	12
Selection of schools	15	10

N = 436 (sample of districts under Title I), 1,609 (sample of those under Chapter 1). Table values based on weighted data.

Sources: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology Inc., 1983).

[1] District coordinators were asked about their perceptions for the previous year.

Table reads: In 1980-81, 67 percent of district coordinators reported that State education agencies (SEAs) were helpful in any aspect of the Title I program.

Drawing on data from both States and school districts, the Administration Study found that most States continue to emphasize compliance at least as much as under Title I, and view program improvement as "an add-on to regular assignments, to be pursued only as time permits" (p. 62). The 27 districts visited for the Administration Study did not report many benefits from State assistance in program quality and improvement. Most did not recall receiving any advice on program development or instructional strategies. Although several States offered workshops or conferences focusing on issues of program quality, only one district reported finding these activities helpful. Both the Administration Study and the Program Design Study concluded that, in the districts that were actively attending to program quality, the reasons appeared to be local factors, such as the predisposition of the local program coordinator or district superintendent, rather than any activities or requirements at the State or Federal level.

CHAPTER 1 EFFECTS ON STATE AND LOCAL ADMINISTRATIVE BURDEN

A stated purpose of Chapter 1 is to reduce unnecessary administrative paperwork and burden. Yet, because most States and districts retain the basic reporting requirements and administrative activities of Title I, their staff reported comparable overall administrative burdens (Administration Study). In some States, administrators reported that less prescriptive local application requirements--substituting assurances for narratives and documentation--save substantial amounts of time. However, even in these States, paperwork reductions do not necessarily mean less work for individual administrators. Staffing cuts have meant that each remaining staff person reviews more documents than before from districts, including the review of compliance documentation on site. Thus, while the total volume of State-level administrative work has probably diminished under Chapter 1 (due primarily to shifts to assurances in a few States), administrators are generally having to take on more tasks than previously.

For many individuals the increased workload probably creates an increased sense of burden.

In school districts, the majority of Chapter 1 administrators reported that the amount of time spent managing the program has remained about the same since Title I (District Survey). Among those indicating change in the amount of time spent, more reported increases than decreases. Administrators in larger districts were particularly likely to report time increases; over one-half of Chapter 1 coordinators in districts enrolling over 25,000 students reported increases in the amount of time they spent administering Chapter 1 in 1985-86 compared to Title 1 in 1981-82. In districts enrolling 1,000 or fewer students, however, less than one-fourth of the coordinators reported greater administrative time commitments.

Comparability and parent involvement were the only areas of their administrative responsibilities where the district coordinators reporting increases in time spent under Chapter 1 did not outnumber those reporting decreases. With respect to comparability, almost identical percentages reported decreases (9 percent) in time as reported increases (8 percent). Both figures fall well below the 41 percent who reported little change. According to the Administration Study, a few districts had substantial reductions in administrative burden due to changes in the comparability requirement. These districts attributed the time savings to either the elimination of comparability calculations or, in some large districts that continue to conduct these calculations, the elimination of teacher salary comparisons. Regarding parent involvement, 24 percent of coordinators reported that less time is spent administering this provision of the law, while 12 percent reported this activity now takes longer (District Survey). Reported reductions in administrative time devoted to parent involvement were relatively consistent across size categories. The percentages of district coordinators reporting such decreases or increases fall well below the 51 percent who reported little change.

Table 4.6

Average Rank[1] of Burden Associated with Selected Requirements Under Title I and Chapter 1, as Reported by District Coordinators, 1985-86

	Average Rank of Burden	
Requirement	**Title I (1981-82)**	**Chapter 1 (1985-86)**
Parent involvement	1	2
Evaluation	2	1
Comparability	3.5	4.5
Selection of students	3.5	3
Supplement, not supplant	5.5	4.5
Maintenance of effort	5.5	7
Selection of schools	7	6
Size, scope, and quality	8	8

N = 1,769 (sample of districts under Title I); 2,145 (sample of those under Chapter 1).

Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology Inc., 1983).

[1] Requirements are ranked on a scale of 1 to 8. A rank of 1 means that a requirement was perceived as the most burdensome, and a rank of 8 means that a requirement was perceived as the least burdensome. Ties in rank are expressed as the midpoint between two ranks.

Table reads: In 1981-82 district coordinators ranked parent involvement requirements first in degree of burden imposed by Title I requirements; in 1985-86 district coordinators ranked parent involvement requirements second in the degree of burden imposed.

Another way to assess how the change to Chapter 1 has affected local coordinators' views about the legal framework is to compare how they rank the relative burden of selected requirements compared with such rankings during the last year of Title I. As Table 4.6 shows, local coordinators' perceptions of relative burden have remained generally stable. Even with respect to parent involvement and comparability, the change is modest.

SUMMARY OF FINDINGS REGARDING THE ADMINISTRATION OF CHAPTER 1

- **Most States and school districts carry out similar activities to demonstrate and document compliance with Chapter 1 as they did under Title I, even where Federal requirements have changed. State and local practices have changed most in parent involvement (the number of advisory councils has decreased) and comparability (fewer calculations are performed and fewer districts shift resources among schools).**

Although Chapter 1 changed administrative requirements in areas such as evaluation, supplementarity, and the documentation of school and student selection, States and school districts have generally continued practices in these areas that are similar to those employed under Title I. One change has been in parent involvement. Advisory councils were eliminated in most districts, although they were most likely to continue in districts with large enrollments. The elimination of advisory council requirements seems to have reduced parent involvement activities more generally in some districts, although the degree of local commitment to parent involvement has continued to be the principal factor in determining whether parents participate actively in Chapter 1 matters. With regard to comparability, our studies do not suggest that districts are deliberately taking advantage of the relaxation in standards for comparability in order to substitute Federal funds for their own spending.

- **Federal and State monitoring activities have declined under Chapter 1. However, State and local administrators continue to devote substantial effort to ensuring compliance with Chapter 1's legal framework.**

The major changes in Federal administration are ED's less specific guidance about practices that meet Chapter 1 requirements and less frequent and intensive program reviews. States and school districts have generally reacted conservatively to the reduction in Federal interpretive guidance by setting policies that closely resemble Title I in areas where they consider the current legal framework ambiguous. Research indicates no effects on State policy from the reduction in Federal program oversight thus far.

Most State administrators continue to devote most of their effort to ensuring local compliance with the program's procedural requirements. Although the amount of State monitoring has declined, most districts have not perceived the change. However, districts have noted increased State auditing activity due to new Federal auditing requirements.

- **Program improvement activities under Chapter 1 have increased at the Federal level. Most States devote relatively few administrative resources to program improvement, and school districts vary widely in their attention to improvement activities.**

The improvement activities of States are guided primarily by their own priorities and interests. The same is true of school districts, whose attention to program improvement concerns is primarily attributable to local factors (such as the predisposition of the local program coordinator or district superintendent). Therefore, Federal policies or initiatives have varied effects on State and local activities to improve the quality of Chapter 1 programs.

- **At the Federal and State levels, the Chapter 1 program is administered by fewer staff than was Title I. At the local level, the number of staff for some special functions has declined considerably. The change from Title I to Chapter 1 had little effect on the perceived responsibilities of most State and school district administrators.**

Federal and State staffing declines occurred among staff with compliance monitoring responsibilities as well as those with special expertise in areas such as parent involvement and curriculum. At the local level, the proportion of Chapter 1 funds going to administrative salaries has remained roughly constant since the last year of Title I. Changes in local administrative staffing levels vary by function with the largest declines taking place in the number of parent, evaluation, and curriculum specialists.

Most State and district program coordinators report that Chapter 1 takes no less time to administer than did Title I, mainly because States and districts generally have retained the reporting requirements and administrative activities of Title I. The greatest decline in State and local administrative activities occurred in the few States that allowed districts to substitute assurances for documentation. In areas where Federal requirements were changed substantially, such as parent involvement and comparability, some local Chapter 1 administrators report decreases in the associated administrative burden, but most do not.

CHAPTER 5

IMPLICATIONS FOR CONGRESS

This chapter presents options that Congress might consider if it wishes to address particular issues examined in this report. Before discussing these options, we describe three realities that often determine the effects of legislative provisions on Chapter 1 practices. First, Chapter 1 is a stable program. Second, local factors strongly influence Chapter 1 practices. Third, Chapter 1's legal framework affects local behaviors both directly and indirectly.

THE CONTEXT FOR CONSIDERING LEGISLATIVE OPTIONS

The Stability of Chapter 1 Programs

Chapter 1 is a stable program. District procedures for selecting schools and students, designing program services, and administering the program tend to remain the same from year to year. Rather than considering alternatives to their current Chapter 1 arrangements every year, local decisionmakers generally keep most features of the previous year's program. Their reasons include satisfaction with the program and reluctance to disrupt services. State and local staff typically have spent many years with the program, further reinforcing program stability.[53]

A major reason for the stability of Chapter 1 programs is that Chapter 1 administrators pay attention to meeting Federal and State requirements. Each local Chapter 1 program reflects years of adjustment among Federal requirements, State preferences, and local needs. Although districts have considerable discretion in designing their Chapter 1 programs, certain Federal provisions place boundaries around acceptable design decisions. These provisions include, in particular, requirements (1) ensuring that Chapter 1 services reach a clearly identified group of educationally disadvantaged students and (2) preventing Chapter 1 services from replacing those that State or local funds would otherwise support.

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[53] The average tenure for State directors is 13 years in the program. Similarly, many local program directors have lengthy experience in their jobs; 42 percent have been the local director for six or more years.

State and local administrators are as concerned about complying with program provisions under Chapter 1 as they were under Title I. In fact, the absence of clear Federal direction during the first years of Chapter 1 reinforced the tendency of States and localities to continue practices that program monitors and auditors had approved in the past.

Effects of Local Factors on Chapter 1 Programs

Local factors strongly influence how Chapter 1 programs operate. One prominent local factor is the educational philosophy of key decisionmakers, especially the Chapter 1 director and the district superintendent (Program Design Study). Other local factors can also influence decisions about Chapter 1 services. For example, the presence of State or local compensatory funds in a local budget may increase the number of students receiving compensatory education services and may affect which schools or students receive Chapter 1 services. Local political, bureaucratic, and practical imperatives often shape Chapter 1 programs in school districts, coming into play especially when competition for resources is an issue. Decisions to provide minimum levels of service to all Chapter 1 schools or to keep resources in schools whose needs have diminished can result, for example, in some schools receiving more Chapter 1 resources and others less than they would if resource distribution were based solely on student needs (Resource Allocation Study).

Local factors often reinforce the stability of Chapter 1 programs. Local contractual, political, or practical considerations may favor maintaining the instructional staff currently employed and thereby discourage changes in program design. A district that employs many aides to provide Chapter 1 services in the regular classroom will not easily shift to a pullout program that relies exclusively on teachers. Furthermore, once these local factors have been accommodated in a program that meets the requirements of Federal and State officials, district administrators seem wary of changing their operations, especially without clear signals from Federal or State administrators.

While local factors often work toward maintaining the status quo, they may also stimulate change in Chapter 1 programs (Program Design Study). For example, the hiring of a new Chapter 1 director may prompt a reexamination and change in program practices.

Because Chapter 1 programs are embedded in local contexts that differ greatly from one another, decisions made in the nation's capital do not drive program practices in any simple or linear way. One implication for legislators is that local responses to changes in legislation or policy generally will take time. According to our studies, sudden changes in Chapter 1 practices have occurred in only two circumstances. First, districts responded swiftly to the unequivocal Federal signal of the Supreme Court's decision in Aguilar vs. Felton. Second, districts responded to sudden changes in their budgets, although local administrators attempted to minimize disruption in Chapter 1 services.[54] In both of these instances, the option of maintaining existing practices was essentially precluded. Moreover, the responses to a legislative or policy change take different forms across States and districts, since Federal or State signals are adapted to local needs and preferences.

Differences in Areas of the Legal Framework

Chapter 1's legal provisions govern local behaviors more directly in some areas than others. In some respects--notably decisions about school and student selection--

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[54] Districts in the Resource Allocation Study sample often use carryover funds to buffer sudden shifts in Chapter 1 allocations.

the law specifies local actions in great detail. Although the targeting of Chapter 1 service look diverse when viewed across districts; in fact, with few exceptions, each district engages in the process that the law establishes for selecting high-poverty schools (by district standards) and low achieving students.

In other respects, including most decisions about program design, the law is less prescriptive. While it specifies procedures that districts must follow in designing Chapter 1 programs--needs assessments, consultation with parents and teachers, and evaluations--it leaves decisions about the content of local programs to State and local discretion. For example, the Federal government does not require services to particular grades or in specific subject areas.

At the same time, the effects of Chapter 1's requirements on program design can be significant even when indirect. For example, some of the program's fiscal requirements (i.e., the supplement, not supplant and general aid provisions) have led many administrators to prefer pullout programs, although many administrators also choose pullouts because they consider them effective. This suggests that Congress should consider the indirect effects on services that may result from a range of policy decisions.

OPTIONS FOR POLICYMAKERS

The Distribution and Selection of Chapter 1 Recipients

Chapter 1 procedures for distributing funds to districts and for selecting schools and students are designed to provide Chapter 1 services to educationally disadvantaged students in schools with high rates of poverty. Analyses presented in our first report to Congress confirmed the premise underlying these procedures--that childhood poverty is related to poor performance in school. That report also found that the concentration of poor children attending a child's school is related to educational outcomes independent of the student's family income. The achievement scores of all children--not just poor children--decline as the proportion of poor children in a school increases.

In the second chapter of this volume, we report that districts generally adhere to Chapter 1's school and student selection provisions. As a result, Chapter 1 schools generally have higher percentages of poor students than other schools in their districts, and Chapter 1 students generally are low achievers. However, the procedures used to distribute funds and select schools and students may have unintended consequences. For example, some schools with very high poverty rates do not receive Chapter 1 funds. Although many of these schools receive compensatory education services from State or local sources, the availability of these services depends on the States or districts in which these schools are located, and the amount of services provided in these programs is often lower than in Chapter 1.

The second chapter also documents achievement patterns of Chapter 1 students that are similar to those described in our first report to Congress. Many students with very low achievement scores do not receive Chapter 1 services, and a small proportion of Chapter 1 students achieve at levels close to or above the national average.

Options for Serving More Schools With High Poverty Rates

Chapter 1 schools with high rates of poverty by national standards often are not included in Chapter 1 because their rates of poverty are not very high by their own district's standard. These unserved schools often have high proportions of low achieving students (Targeting Study).

> If Congress wants the Chapter 1 program to serve more schools with high poverty rates, the districts with high poverty rates in which these schools are located need enough funds to serve more schools. To achieve this goal, Congress could consider: (1) funding Concentration Grants for districts with high rates of poverty or (2) redistributing Chapter 1 funds to decrease grants to districts with low rates of poverty and increase grants to districts with high rates of poverty.

The Chapter 1 law contains a provision for Concentration Grants to districts with especially high concentrations of poor children. Such grants rarely have been funded, but they would provide more resources to districts with especially large numbers or high proportions of very poor schools and low achieving students.

Congress also could consider approaches that would redistribute Chapter 1 funds among school districts. Our findings indicate that, while some schools with high poverty rates do not receive Chapter 1 funds, many schools with low poverty rates do, and these schools tend to be in low-poverty districts.

Chapter 1 funds could be redistributed in a number of ways. One way would be to raise the minimum number of poor students who must reside in a district to enable it to qualify for Chapter 1 funds; the current law allows any district with 10 poor students to qualify. An alternative might require districts to be responsible for the educational needs of low-income children up to a specified proportion of their student population. If, for example, school districts were required to meet the educational needs of poor children up to a threshold of 7 percent of the district population, districts with 7 percent or fewer poor children would not receive Chapter 1 funds.[55] The formula would allocate the funds that these districts would have received to districts with higher rates of poverty.

Another method for redistributing Chapter 1 funds would be to set national or State standards for defining poor schools, rather than using within-district standards. As one possibility, the law could specify that no school could receive Chapter 1 funds if its proportion of children from low-income families placed it in the quarter of schools in the nation with the fewest low-income students. Funds freed up could be used to provide more services to schools with higher poverty rates in these districts, or could be distributed to other districts that have schools with greater needs.

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[55] Using 7 percent as a criterion, such a provision would eliminate one-quarter of the nation's school districts from Chapter 1 services but would affect only about 9 percent of all Chapter 1 students (See Chapter 2).

In addition to considering legislative options that would increase funds to districts with high concentrations of poverty, Congress could consider refining the procedures used within districts to select Chapter 1 schools. For example, Federal legislation could require that districts provide Chapter 1 funds only to those schools whose poverty rates are in the highest third, rather than the upper half, of poverty rates in their districts or grade spans. However, the effects of such a change would vary greatly from district to district. In districts with high rates of poverty, limiting the pool of schools that could receive Chapter 1 funds would exclude schools with very high concentrations of poor children by national standards. In districts with low rates of poverty, schools with low concentrations of poor children could be excluded. However, if Chapter 1 allocations remained the same in these districts, the change would result in funding increases for the district's remaining schools, which would also tend to have fairly low rates of poverty.

Options for Serving More Low Achievers

Providing Chapter 1 services to more schools with high poverty rates would allow Chapter 1 to serve more low achievers. In addition, Congress could examine some of the procedures districts use to select schools, allocate resources, and select students.

> If Congress wants Chapter 1 to serve more low achievers, it could consider (1) encouraging districts to serve their lowest achievers in all grades, (2) encouraging districts to allocate resources to schools more directly on the basis of the number of disadvantaged students to be served, or (3) modifying some of the procedures districts use to select students. Such modifications would also limit the Chapter 1 participation of students whose achievement is at or near the national average.

The provisions enabling school districts to provide services to schools and students in some grades and not others exclude many low achievers from Chapter 1. While these provisions are often used to provide services of "sufficient size, scope and quality" in the selected grades, such provisions mean that even the lowest achieving students in the unserved grades do not receive Chapter 1 services. In some States, these students may receive State compensatory education services, but these services vary in scope and intensity. Provisions that allow districts to select only some grades for Chapter 1 services are most likely to exclude low achieving students in middle or secondary grades because districts prefer to serve elementary students, as we noted in Chapters 2 and 3 of this report.

If the objective is to serve more low achievers, Congress could consider providing sufficient funds to serve such students in all grades. However, higher funding levels alone would not guarantee that districts would use the additional funds to serve students in the unserved grades, since districts could choose to serve a larger number of students in the grades currently served.

In addition to increasing funding levels, Congress could require that districts place an upper limit on the achievement levels of participants in the grades selected for Chapter 1 services. Districts would not be allowed to serve students with higher achievement in those grades until they served the lowest achievers in all grades.

One factor that accounts for the absence of low achievers from Chapter 1 programs is that, within districts, some schools with many low achievers receive less funding than is warranted by the needs of their students, and other schools receive more. This uneven relationship between educational needs and local resource allocations can also result in a lower intensity of services in some schools than in others. Congress could once again direct districts, as it did under Title I, to allocate resources "on the basis of the number and needs of children to be served" (Section 124(e)). Although districts are likely to incorporate some measures of need in allocating resources to schools, an equitable distribution of Chapter 1 resources may depend on other specific procedures, such as allocating Chapter 1 staff more precisely (i.e., allocating fractions of staff to schools), using [illegible] allocating instructional resources as in selecting students, basing staff allocations duplicated counts of students (when the same students need compensatory services in both reading and math), and maintaining the same Chapter 1 case loads across all schools in a district (Resource Allocation Study). In considering whether to require such procedures, Congress would have to weigh their apparent benefits against problems that can arise when detailed rules are applied to widely varying local circumstances. For example, a district with schools dispersed across a wide geographic area would have difficulty meeting a requirement that teachers' time must be split across schools.

Congress could also consider modifying student selection procedures in order to ensure that the lowest achievers are selected to receive Chapter 1 services. Compared with other districts, those that select students using teacher judgments without uniform criteria are less likely to serve some very low achieving students in any special programs (Targeting Study). Therefore, Congress could specify that districts must use the same student selection criteria and procedures in all schools. This change in student selection procedures could also decrease the Chapter 1 participation of students whose achievement is at or near the national average.

Additional options that Congress could consider if it wishes Chapter 1 to serve fewer students scoring at or near the national average would be to clarify how the formerly eligible option should be used or to specify an achievement ceiling for students receiving Chapter 1 services.

Services Delivered to Chapter 1 Students

Our second report to Congress noted that students receiving Chapter 1 services experience larger increases in their standardized achievement test scores than comparable students who do not. However, the effects vary across subject matters, grade levels, types of students served, and localities, and the gains appear to be gradually lost when students discontinue program services. As a first step toward explaining the outcomes of Chapter 1 programs, the second report summarized research from reviews commissioned for the National Assessment about effective educational practices for disadvantaged children (see Appendix B). Using this research as a guide, Chapter 3 of this final report describes features of Chapter 1 services.

Chapter 3 documents similarities among services in the nation's Chapter 1 programs: they usually concentrate on basic skills instruction in elementary schools, and instruction in each subject area generally lasts for 30 to 35 minutes each day outside the student's regular classroom. Most Chapter 1 programs provide services in groups that are small enough potentially to improve student achievement. Other features of Chapter 1 programs, such as active teacher direction or coordination with the regular program, vary considerably across schools and districts. Thus, many Chapter 1 programs employ instructional features that are likely to benefit students, while others could adopt more effective strategies than they currently use. Finally, Chapter 1 programs rarely use some approaches that researchers consider promising, such as comprehensive schoolwide projects, programs that substantially increase the total amount of time devoted to instruction, and instruction in higher order academic skills.

This report also notes the stability of Chapter 1 programs. Whatever their features, the design of Chapter 1 programs tends to remain constant from one year to the next.

Options for Improving Chapter 1 Services

Enhancing the quality of Chapter 1 programs is difficult to accomplish with traditional legislative tools. While we know something about the instructional approaches that could improve the achievement of Chapter 1 students, we also know that their effectiveness, and even their suitability in particular schools or districts, depends heavily on local factors that are beyond the reach of Federal legislation.

> If Congress wants to improve Chapter 1 services, it could consider three general approaches: (1) fine-tuning provisions of the law in order to facilitate districts' adoption of promising instructional practices, (2) strengthening accountability for program outcomes by rewarding States and districts that improve achievement and penalizing those that do not, and (3) encouraging districts to improve Chapter 1 services by recognizing effective Chapter 1 projects or initiating demonstration activities. All of these approaches would be enhanced by technical assistance aimed at improving program quality.

Traditionally, the Chapter 1 law has addressed the issue of program quality by mandating procedures to be used in designing programs. Chapter 1 already requires needs assessments, consultation with parents and teachers, and local evaluations. Studies conducted for the National Assessment indicate that, in many districts, such procedures alert program administrators to problems in their Chapter 1 programs. However, other districts seem to attend to the letter but not the spirit of these requirements, often "going through the motions" without using them to review and alter the design of Chapter 1 services. Technical assistance can sometimes help districts make better use of Chapter 1's procedural requirements. However, because local factors can determine whether the required procedures contribute to improving Chapter 1 programs, additional procedural requirements alone are not likely to improve Chapter 1 programs if they haven't already done so.

At least one aspect of the law inhibits local educators from adopting practices that show promise for improving the achievement of students: the requirement that school districts contribute matching funds to pay for the services that ineligible students receive in schoolwide projects. This provision discourages districts from using Chapter 1 funds in a whole-school approach to service delivery.

However, our studies indicate that the legal framework is only one among many factors influencing the design of Chapter 1 programs, so removing legal impediments will not necessarily lead to practices that would improve the achievement of Chapter 1 students. In the case of schoolwide projects, eliminating matching requirements might encourage more districts to adopt those projects. However, even districts that currently take the initiative to fund and carry out schoolwide projects do not use them for the types of comprehensive approaches that researchers consider effective.

Local factors are likely to account for the absence of programs that would increase the total amount of time devoted to learning by providing services before or after school, or during the summer. Nothing in the Chapter 1 legal framework prevents districts from adopting such programs. Yet, local educators tend not to adopt them, probably due to local constraints such as scheduling and transportation difficulties. Thus, while features of the law might be modified, they will not lead automatically to widespread changes in practice.

Another approach to improving the achievement of Chapter 1 students would be to hold States and districts accountable for program outcomes. This could involve rewards for successful programs, and actions to be taken if outcomes did not meet the specified standards. Accountability for program outcomes would entail technical difficulties, such as how to set and measure standards for success. Past research suggests that students with very low achievement appear not to move ahead in Chapter 1 settings; students with higher entering achievement levels seem to show greater gains from program services. In devising outcome standards, great care would have to be taken not to penalize programs whose students have entered with particularly severe educational disadvantages or to encourage Chapter 1 programs to enroll only those students who are most likely to show large gains from Chapter 1 services.

Congress also could consider other approaches that would encourage school districts to improve their Chapter 1 programs. Efforts to recognize effective Chapter 1 projects, such as those ED has launched during the past few years, are aimed at stimulating such improvements. Demonstration programs, another strategy often used by Congress for this purpose, could increase our knowledge as well. Because they are rarely implemented in Chapter 1 settings, projects that teach higher order academic skills to low achievers would be good candidates for demonstration activities. Congress might wish to allow greater flexibility in some program requirements in order for demonstrations to cover a broad range of approaches to delivering Chapter 1 services.

Chapter 1 administrators face particular challenges in developing new approaches to serving students who attend private schools, in light of the Supreme Court's decision in Aguilar vs. Felton. Because the Court ruled that public school teachers could not be sent into sectarian schools to provide Chapter 1 services, districts have had to find alternative ways to serve students attending private schools. Congress could consider assisting States and districts in developing approaches to serving private school students and in disseminating successful strategies. For example, the use of computer-assisted instruction to provide services to students in private schools has increased in frequency since the Aguilar ruling; districts considering this approach could benefit from information about how computers have been successfully used elsewhere in responding to requirements of the Supreme Court's ruling. Some alternative strategies for providing Chapter 1 services to students attending private schools, such as the use of mobile vans, would require additional funding at least initially. More fundamental changes, such as providing Chapter 1 funds directly to parents to purchase Chapter 1 services, would require specific authorization by Congress.[56]

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[56] The constitutionality of this approach has not been tested. For a fuller discussion of this option, see Riddle (1986, 1987).

Approaches to improving the quality of Chapter 1 services would be reinforced by technical assistance. The challenges of building upon current capacity to deliver such assistance are discussed in the next section.

The Administration of Chapter 1

While Chapter 1 retained the basic purposes of Title I, the intent of Chapter 1 was to meet these purposes without "burdensome, unnecessary and unproductive paperwork and to free the schools of unnecessary Federal supervision, direction and control." Proponents of the new law hoped that it would allow States and districts to pay more attention to program quality. Opponents feared dramatic changes in State and local operations and dilution of services to disadvantaged students. The data presented in this report indicate that, at least for the present, neither the hopes of proponents nor the fears of critics have been realized.

In general, State and local agencies continue to operate Chapter 1 programs in the same ways as they operated them under Title I. A major reason for this stability is that, while Chapter 1 changed reporting requirements or modified standards used to demonstrate compliance with the law, the basic principles of the law remained unchanged. For example, Chapter 1 reduced the documentation that districts must submit about their school and student selection procedures, but the required procedures themselves changed only marginally. Almost all localities and States continued to submit and review documents as they had under Title I, even though these documents were no longer explicitly required. Our studies of State and local practices suggest that as long as administrators perceive that they are being held accountable for complying with the law's basic principles, most will maintain practices that have met legal requirements in the past.

These observations are based on only the first three years of Chapter 1. We do not know whether, over time, States and localities will gradually change their administrative practices more substantially. The decreased frequency and intensity of program monitoring, combined with fewer staff to review and provide assistance to State and local programs, might eventually lead to local administrative changes. (Our evidence suggests that this has not happened, perhaps in part because auditing has continued under Chapter 1.) However, it appears that if Congress continues to be concerned about the burdens imposed by Chapter 1 requirements, it would have to consider more far-reaching changes in requirements than those represented in the shift from Title I to Chapter 1. This would require greater changes in basic principles underlying the program and its accountability mechanisms than Congress has been willing to pursue in the past.

Options to Increase Administrators' Attention to Improving Chapter 1 Programs

Reducing some administrative burdens will not automatically increase administrators' attention to improved programs. Improving Chapter 1 programs involves continual reassessment by State and local administrators, and the quality of Chapter 1 services often depends on the expertise and enthusiasm of those who deliver them. However, our findings indicate that States and districts vary greatly in the attention that they devote to the educational quality of their programs and their capacity to improve them. Our data raise the question of whether all States and localities currently have the capacity to undertake significant improvement initiatives in the Chapter 1 program. Building this capacity poses a challenge. States and localities have lost much of the staff that provided assistance, and only a modest proportion of districts report that State assistance in improving Chapter 1 programs has been helpful.

> If Congress wishes to increase administrators' attention to improving Chapter 1 programs, it could assign State or local administrators new responsibilities in this area, possibly through new incentives, and provide them with assistance to fulfill these responsibilities.

If Congress intends State and local administrators to pay more attention to improving Chapter 1 programs, it may need to create new incentives. Such incentives would involve a different concept of the role of States, which currently have few responsibilities to improve Chapter 1 programs. Any new responsibilities for improving the quality of Chapter 1 programs would direct more of the attention of State administrators to this aspect of their programs. New State responsibilities could take many forms, such as awarding small grants to districts for innovative programs, rewarding districts whose Chapter 1 programs are particularly successful, or establishing special teacher training centers. Such activities would also focus the attention of district administrators on improving the quality of Chapter 1 programs. Parallel activities could also be required of districts themselves, especially large districts with staff capacity to take on new functions. For example, districts could receive special funds earmarked for innovative instructional activities. Another type of incentive to increase the attention of Chapter 1 administrators to the quality of Chapter 1 programs would be to hold States and districts accountable for program outcomes, a strategy discussed earlier in this chapter.

Responsibilities for improving Chapter 1 programs would require administrators to become better informed about ways to improve the achievement of low achieving students. These strategies would therefore create demand for more Federal, State, and local technical assistance for improving program quality. The Education Department has already expanded activities of the Chapter 1 Technical Assistance Centers in this direction.

Options for Increasing Parent Involvement

The involvement of parents has always been an important aspect of Chapter 1 programs. This report indicates that many forms of parent involvement are less likely to occur among Chapter 1 schools with high poverty rates. Our studies and others also found that parent involvement is more closely related to local factors than to Federal requirements. Nevertheless, while Title I parent advisory councils did not always ensure high levels of parent involvement, Chapter 1's elimination of the requirement for parent councils was accompanied by the perception in some districts that, in general, parent involvement activities were less important than previously. The change from Title I to Chapter 1 diminished support for all forms of parent involvement in these districts. Thus, our studies indicate the importance of both Federal leadership in stimulating parent involvement activities and local commitment to these activities.

> If Congress wants to encourage greater parent involvement in Chapter 1 programs, it will need to emphasize the importance of parent involvement activities and stimulate greater commitment to these activities from administrators, especially in areas with very high poverty rates.

Federal requirements play an important role in legitimizing State and local initiatives. The Education Department established new parent involvement guidelines through regulations last year. However, while Federal requirements may be necessary, they cannot by themselves ensure substantial contributions of parents to local programs. Our studies indicate that such involvement occurs only in the presence o strong commitment to parent involvement on the part of States and school districts and active outreach by educators, especially in low-income areas. The importance of such active outreach would require continued reinforcement by Federal officials in their monitoring of the Chapter 1 program, and an emphasis on parent involvement in the technical assistance provided by Federal, State and local officials. Such activities would be enhanced by the development of promising strategies, as well as recognition and demonstration activities similar to those undertaken to improve other aspects of Chapter 1 programs.

FINAL NOTE

Reviewing the options that policymakers could consider during the reauthorization of Chapter 1 highlights how the different aspects of this program are intertwined. For local educators, decisions about which students should receive Chapter 1 services are also decisions about the types of Chapter 1 resources schools will receive and about the design of the program. For example, providing more services to secondary students would involve more than a decision to provide Chapter 1 services in those grades. Often, districts do not know about approaches that will work for secondary students and lack the materials or trained staff to provide such services. Thus, a decision about the selection of schools and students also affects the quality of Chapter 1 services and their potential to increase student achievement. Similarly, strategies to improve Chapter 1 programs would involve incentives for administrators to pay more attention to the program's quality and effectiveness. Such strategies would also depend on increasing our basic knowledge about educational approaches that work for low achieving students.

Chapter 1 programs are by now an integral part of education in almost all of the nation's school districts. The maturity of Chapter 1 programs is a strength and a reflection of the commitment of Federal, State, and local education officials to meeting the needs of educationally disadvantaged students. Like any large and mature program, Chapter 1 warrants continued scrutiny. This National Assessment has taken a snapshot of the program's current operations and has provided information that should enable Congress to strengthen Chapter 1 by maintaining strong aspects of the program and modifying others.

References

Advanced Technology, Inc.
1983 Local Operation of Title I ESEA 1976-1982: A Resource Book. Reston, VA: author.

Allington, R. L.
1986 "Policy Constraints and the Effective Delivery of Remedial Instruction: A Review," in J. Hoffman (ed.) The Effective Teaching of Reading: Research and Practice. Newark, DE: International Reading Association.

Allington, R. L. and P. Johnston
1986 The Coordination Among Regular Classroom Reading Programs and Targeted Support Programs. Albany, NY: State University of New York.

Allington, R. L., H. Stuetzel, M. Shake, and S. Lamarche
In Press "What is Remedial Reading? A Descriptive Study." Reading Teacher 39: 648-654.

Anderson, L. M., N. L. Brubaker, J. Allenman-Brooks and G. G. Duffy
1985 "A Qualitative Study of Seatwork in First Grade Classrooms." Elementary School Journal 66: 123-140.

Archambault, F. X.
1986 "Instructional Setting: Key Issue or Bogus Concern," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.), Designs for Compensatory Education: Conference for Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Archambault, F. X. and R. G. St. Pierre
1980 "The Effect of Federal Policy on Services Delivered Through ESEA Title I." Education Evaluation and Policy Analysis 2: 33-46.

Bell, T. H.
1981 Press Release--Elementary and Secondary Education Consolidation Act of 1981. Washington, D.C.: U.S. Department of Education.

Bessey, B. L., D. A. Brandt, P. A. Thompson, L. R. Harrison, K. E. Putnam and J. A. Appleby
1982 A Study of State Management Practices: Looking Back at Title I and Toward Chapter 1. Palo Alto, CA: American Institutes for Research.

Botel, M.
1978 "Aspects of Planning, Organization, and Management of Selected Reading Programs," in National Institute of Education, Perspectives on the Instructional Dimensions Study. Washington, D.C.: U.S. Department of Education.

Brophy, J.
1986 "Research Linking Teacher Behavior to Student Achievement: Potential Implications for Instruction of Chapter 1 Students," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Brophy, J. and C. Evertson
1974 Process-product Correlations in the Texas Teacher Effectiveness Study: Final Report. Austin, TX: Research and Development Center for Teacher Education.

Brophy, J. and T. Good
1986 "Teacher Behavior and Student Achievement," in M. C. Wittrock (ed.) Handbook of Research on Teaching (third edition). New York: Macmillan.

Brown, F.
1982 "Improving Schooling Through Title I: A Model for Change." Education and Urban Society 15(1): 125-142.

Cahen, L. S., N. N. Filby, G. McCutcheon and D. W. Kyle
1983 Class Size and Instruction. New York: Longman.

Calfee, R.
1986 "Curriculum and Instruction: Reading," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: U.S. Department of Education.

Carpenter, M. A. and P. A. Hopper
1985 Synthesis of State Chapter 1 Data: Summary Report (Prepared for State and Local Grants Division, Office of Planning, Budget and Evaluation, U.S. Department of Education). Reston, VA: Advanced Technology, Inc.

Carter, L. F.
1984 "The Sustaining Effects Study of Compensatory and Elementary Education." Educational Researcher 13(7): 4-13.

Chi, M., R. Glaser, and E. Rees
1982 "Expertise in Problem Solving," in R. Sterberg ed. Advances in the Psychology of Human Intelligence. Hillsdale, NY: Erlbaum Associates.

Coleman, J. S., E. Q. Campbell, C. J. Hobson, J. McPartland, A. M. Mood, F. D. Weinfeld and R. L. York
1966 Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office.

Coleman, J. S., T. Hoffer and S. Kilgore
1982 High School Achievement: Public, Catholic, and Private Schools Compared. New York: Basic Books, Inc.

Cooper, H. M.
1986 "Chapter 1 Programs Reduce Student-to-Teacher Ratios but Do Reduced Ratios Affect Achievement?" in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Congressional Research Service and Congressional Budget Office
1985 Children in Poverty (Prepared for the Committee on Ways and Means, U.S. House of Representatives). Washington, D.C.: U.S. Government Printing Office.

Cooley, W. W. and G. Leinhardt
1980 "The Instructional Dimensions Study." Education Evaluation and Policy Analysis 2(1).

Coulson, J. E., D. Ozenne, S. Hanes, C. Bradford, D. Doherty, G. Duck and J. Hemenway
1977 The Third Year of the Emergency School Aid Act (ESAA) Implementation. Santa Monica, CA: System Development Corporation (ED 154 952).

Darling-Hammond, L. and E. L. Marks
1983 The New Federalism in Education: State Responses to the 1981 Education Consolidation Improvement Act. Santa Monica, CA: Rand Corporation.

de Kanter, A., A. L. Ginsburg and A. M. Milne
1986 "Parent Involvement Strategies: A New Emphasis on Traditional Parent Roles," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Dougherty, J. C., IV
1985 A Matter of Interpretation: Changes Under Chapter 1 of the Educational Consolidation and Improvement Act. Prepared for the Subcommittee on Elementary, Secondary and Vocational Education of the Committee on Education and Labor, U.S. House of Representatives. Washington, D.C.: U.S. Government Printing Office.

Doyle, W.
1983 "Academic Work." Review of Educational Research 53: 159-200.

Farrar, E. and M. A. Millsap
1986 State and Local Administration of the Chapter 1 Program. Washington, D.C.: Abt Associates.

Fisher, C. W. and D. C. Berliner (Eds.)
1985 Perspectives on Instructional Time. New York: Longman.

Funkhouser, J. E.
1986 Relationship Between Chapter 1, State Compensatory Education Programs and State Educational Reform (briefing prepared for the staff of the Subcommittee on Elementary, Secondary, and Vocational Education, U.S. House of Representatives). Washington, DC.

Funkhouser, J. E., J. S. Michie and M. T. Moore
1987 Federal Administration of Chapter 1, ECIA Staffing and Financial Support Substudy. Washington, D.C.: Decision Resources Corporation.

Funkhouser, J. E. and M. T. Moore
1985 Summary of State Compensatory Education Programs. Washington, D.C.: Decision Resources Corporation.

Gaffney, Anspach, Schember, Klimaski & Marks, P.C.
1987 Chapter 1: The Choices for Educators. Washington, D.C.: author.

Gaffney, M. J. and D. M. Schember
1987 An Analysis of the Internal Consistency of Selected Aspects of the Legal Framework for Chapter 1, ECIA. Washington, D.C.: Gaffney, Anspach, Schember, Klimaski & Marks, P.C.

General Accounting Office
1987 Compensatory Education: Chapter 1 Participants Generally Meet Selection Criteria (Report No. GAO/HRD-87-26). Washington, D.C.: author.

Glass, G. V., L. S. Cahen, M. L. Smith and N. N. Filby
1982 School Class Size. Beverly Hills, CA: Sage Publications.

Goertz, M. E.
1987 School Districts' Allocation of Chapter 1 Resources. Princeton, NJ: Educational Testing Service.

Goettel, R. J., Kaplan, B. A. and M. Orland
1977 Synthesis Report: A Comparative Analysis of ESEA, Title I Administration in Eight States, Volume S. Syracuse, NY: Syracuse Research Corporation.

Good, T.
1978 The Missouri Mathematics Effectiveness Project. Columbia, MO: University of Missouri, School of Education.

Gutmann B. and A. Henderson
1987 A Summary of State Chapter 1 Participation and Achievement Information for 1984-85. Washington, D.C.: Decision Resources Corporation.

Hanushek, E. A.
1986 "The Economics of Schooling: Production and Efficiency in Public Schools." Journal of Economic Literature 14: 1141-1177.

Hedges, L. V. and W. Stock.
1983 "The Effects of Class Size: An Examination of Rival Hypotheses." American Educational Research Journal 20: 63-85.

Henderson, A.
1987 The Evidence Continues to Grow: Parent Involvement Improves Student Achievement. Columbia, MD: National Committee for Citizens in Education.

Hoffer, T., A. M. Greeley and J. S. Coleman
1985 "Achievement Growth in Public and Catholic Schools." Sociology of Education 58: 74-97.

Jay, E. D. and P. M. Shields
1987 Parent Involvement in Local Chapter 1 Programs. Menlo Park, CA: SRI International.

Jencks, C., M. Smith, H. Acland, M. J. Bane, D. Cohen, H. Gintis, B. Heyns and S. Michaelson
1972 Inequality. New York: Basic Books.

Johnston, P., R. Allington and P. Afflerbach
1985 "The Congruence of Classroom and Remedial Instruction." Elementary School Journal 85(4): 465-477.

Jung, R. K.
1982 Non-public School Students in Title I ESEA Programs: A Question of "Equal" Services (A special report of the Title I District Practices Study, U.S. Department of Education). Reston, VA: Advanced Technology, Inc.

Jung, R. K.
1987 The Aftermath of Felton: A National Perspective. Presented at the annual meeting of the American Educational Research Association, Washington.

Karweit, N. L.
1987 Effective Early Childhood Education and Kindergarten Programs for Children at Risk of Academic Failure. Presented at the annual meeting of the American Educational Research Association, Washington.

Keesling, J. W.
1980 Parents and Federal Education Programs: Preliminary Findings From the Study of Parental Involvement. Santa Monica, CA: System Development Corporation.

Kennedy, M. M, B. F. Birman and R. E. Demaline
1986 The Effectiveness of Chapter 1 Services. An Interim Report from the National Assessment of Chapter 1. Washington, D.C.: U.S. Department of Education.

Kennedy, M. M., R. K. Jung and M. E. Orland
1986 Poverty, Achievement and the Distribution of Compensatory Education Services. Washington, D.C.: U.S. Department of Education.

Kimbrough, J. and P. T. Hill
1981 The Aggregate Effects of Federal Education Programs. Santa Monica, CA: Rand Corporation.

Kirst, M. and R. Jung
1980 "The Utility of a Longitudinal Approach in Assessing Implementation: A Thirteen-Year View of Title I, ESEA." Education Evaluation and Policy Analysis 2(5)

Knapp, M. S., B. J. Turnbull, C. H. Blakely, E. D. Jay, E. L. Marks and P. M. Shields
1986 Local Program Design and Decisionmaking Under Chapter 1 of the Education Consolidation and Improvement Act. Menlo Park, CA: SRI International.

Konstant, C., and R. N. Apling
1984 Annotated Bibliography: Studies of Social Demographic Variables on Educational Achievement. Washington, D.C.: Policy Studies Associates.

Leinhardt, G., W. Bickel and A. Pallay
1982 "Unlabeled But Still Untitled: Toward More Effective Remediation." Teachers College Record 84: 391-422.

Ligon, G. D., and D. A. Doss
1982 Some Lessons We Have Learned From 6500 Hours of Classroom Observations (Pub. no. 81.56). Austin, TX: Office of Research and Evaluation, Austin Independent School District.

Madden, N. A., and R. E. Slavin
1987 Effective Pull-out Programs for Students at Risk. Presented at the annual meeting of the American Educational Research Association, Washington, DC.

Martin R. and P. McClure
1969 Title I of ESEA: Is It Helping Poor Children? Washington, D.C.: Washington Research Project of the Southern Center for Studies in Public Policy and the NAACP Legal Defense of Education Fund, Inc.

McDonnell, L. M. and M. W. McLaughlin
1982 Education and the Role of the States. Santa Monica, CA: Rand Corporation.

McLaughlin, M. W., P. M. Shields and D. J. Rezabek.
1985 State and Local Response to Chapter 1 of the Education Consolidation and Improvement Act, 1981. Palo Alto, CA: Institute for Research on Educational Finance and Governance.

McLaughlin, M. W. and P. M. Shields
1986 "Involving Parents in the Schools: Lessons for Policy," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Millsap, M. A. and N. R. Wilber
1987 After Aguilar vs. Felton: Chapter 1 Services for Massachusetts Nonpublic School Students. Washington, D.C.: Policy Studies Associates.

Moore, M. T. and K. Pontzer
1987 Federal Compliance Efforts Under Chapter 1, ECIA (in progress). Washington, D.C.: Decision Resources Corporation.

National Center for Education Statistics
1980 ESEA Title I Schoolwide Projects: Eligibility and Participation (Fast Response Survey System, Report No. 9). Washington, D.C.: U.S. Department of Education.

National Institute of Education
1977 Evaluating Compensatory Education: An Interim Report on the NIE Compensatory Education Study. Washington, D.C.: U.S. Department of Education.

Nuthall, G. and J. Church
1973 "Experimental Studies of Teaching Behavior," in G. Chanan (ed.) Towards a Science of Teaching. London: National Foundation for Educational Research.

Office of Educational Research and Improvement, Center for Education Statistics
1987 Digest of Education Statistics, 1985-86. Washington, D.C.: U.S. Government Printing Office.

Office of Educational Research and Improvement, Center for Education Statistics
1987 Elementary and Secondary Education Indicators in Brief. Washington, D.C.: U.S. Government Printing Office.

Office of Educational Research and Improvement, Center for Education Statistics
1987 Recent Oversight Experience in ECIA Chapter 1 Programs. Washington, D.C.: U.S. Department of Education.

Office of Educational Research and Improvement, Center for Education Statistics
1987 ECIA Chapter 1 Participation of Nonpublic School Students, 1985-86. Washington, D.C.: U.S. Department of Education.

Office of Educational Research and Improvement, Center for Education Statistics
1985 The Condition of Education (1985 edition). Washington, D.C.: U.S. Department of Education.

Office of Technology Assessment
1987 Trends and Status of Computers in Schools: Use in Chapter 1 Programs and Use with Limited English Proficient Students. Washington, D.C.: U.S. Congress.

Orland, M. E.
1987 Relating School District Resource Needs and Capacities to Chapter 1 Allocations: Implications for More Effective Service Targeting. Presented at the annual meeting of the American Educational Research Association, Washington, D.C.

Peterson, P. L.
1986 "Selecting Students and Services for Compensatory Education: Lessons from Aptitude-Treatment Interaction Research," in B. I. Williams, P. A. Richmond, and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Pogrow, S. and B. Buchanan
1985 "Higher-Order Thinking for Compensatory Students." Educational Leadership 43: 40-43.

Purkey, S. and M. S. Smith
1983 "Effective Schools: A Review." The Elementary School Journal 83: 427-452.

Reisner, E. R. and E. L. Marks
1987 The Federal Administration of Evaluation, Program Improvement, and Technical Assistance Under ECIA, Chapter 1. Washington, D.C.: Policy Studies Associates, Inc.

Rich, D.
1986 "The Parent Gap in Compensatory Education," in B. I. Williams, P. A. Richmond, and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Riddle, W.
1986 Chapter 1, Education Consolidation Improvement Act Grants to Local Educational Agencies for the Education of Disadvantaged Children: Selected Reauthorization Options and Alternatives. Washington, D.C.: Congressional Research Service.

Riddle, W.
1987 Education for Disadvantaged Children: Reauthorization Issues. Washington, D.C.: Congressional Research Service.

Robinson, G. E. and J. H. Wittebols
1986 Class Size Research: A Related Cluster Analysis for Decision Making. Arlington, VA: Educational Research Service, Inc.

Romberg, T. A.
1986 "Mathematics for Compensatory School Programs," in B. I. Williams, P. A. Richmond and B. J. Mason (eds.) Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Rosenshine, B.
1983 "Teaching Functions in Instructional Programs." The Elementary School Journal 83: 335-352.

Rowan, B., L. P. Guthrie, G. V. Lee and G. P. Guthrie
1986 The Design and Implementation of Chapter 1 Instructional Services: A Study of 24 Schools. San Francisco, CA: Far West Laboratory.

Scheutz, P.
1980 The Instructional Effectiveness of Classroom Aides. Pittsburgh, PA: University of Pittsburgh Learning Research and Development Center.

Shields, P. M. and M. W. McLaughlin
1986 Parent Involvement in Compensatory Education Programs. Stanford, CA: Center for Educational Research at Stanford.

Slavin, R. E.
1984 "Meta Analysis in Education: How Has It Been Used?" and "A Rejoinder to Carlbert et al." Educational Researcher: 6-15 and 24-27.

Slavin, R. E. and N. A. Madden
1987 Effective Classroom Programs for Students at Risk. Presented at the annual meeting of the American Educational Research Association, Washington, DC.

Smith, L. R.
1985 "Presentational Behaviors and Student Achievement in Mathematics." Journal of Educational Research 78: 292-298.

Smith, M. S.
1986 Selecting Students and Services for Chapter 1: Reactions. Madison: Wisconsin Center for Education Research, University of Wisconsin-at-Madison.

Stallings, J. A. and D. Kaskowitz
1974 Follow-through Classroom Observation 1972-73. Menlo Park, CA: SRI International.

Thorne, J., C. Copple, L. Lewis, and J. TerMaat
1987 A National Survey of ECIA Chapter 1 Schools: Design and Procedures. Rockville, MD: Westat.

U.S. Department of Commerce, Bureau of the Census
1986 School Enrollment--Social and Economic Characteristics of Students: October 1985 (Advance Report) (Current Population Reports, Series P-20, No. 409). Washington, D.C.: author.

U.S. Department of Education
1986 Additional Guidance on Aguilar v. Felton and Chapter 1 of the Educational Consolidation and Improvement Act (ECIA), Questions and Answers. Washington, D.C.: author.

Vanecko, J. J., N. L. Ames and F. X. Archambault
1980 Who Benefits from Federal Education Dollars? Cambridge, MA: Abt Books.

Walberg, H. J.
1984 "Improving the Productivity of America's Schools." Educational Leadership 41.

Walberg, H. J. and W. C. Frederick
1983 "Instructional Time and Learning," in H. Mitzeo ed. Encyclopedia of Educational Research, Volume 2. New York: Free Press.

Wang, M. M., R. Hoepfner, H. Zagorski, J. A. Hemenway, D. S. Brown and M. B. Bear
1978 The Nature and Recipients of Compensatory Education (Tech. Rep. No. 5). Santa Monica, CA: System Development Corporation.

Williams, B. I., P. Richmond and B. Mason
1986 Designs for Compensatory Education: Conference Proceedings and Papers. Washington, D.C.: Research and Evaluation Associates.

Williams, B. I., J. Thorne, J. S. Michie and R. Hamar
1987 The District Survey: A Study of Local Implementation of ECIA Chapter 1. Washington, D.C.: Research and Evaluation Associates.

Winslow, H. R.
1979 Trends in Management of ESEA Title I: A Perspective from Compliance Reviews. Menlo Park, CA: SRI International.

Wolf, A.
1977 "The Relationship Between Poverty and Achievement." Compensatory Education Study. Washington, D.C.: National Institute of Education.

Wood, C. T., R. Gabriel, C. Marder, N. N. Gamel and A. Davis
1986 A Study of Targeting Practices Used in the Chapter 1 Program. Mountain View, CA: SRA Technologies, Inc.

APPENDIX A

CONGRESSIONAL MANDATE FOR THE NATIONAL ASSESSMENT OF COMPENSATORY EDUCATION

"Sec. 559 (a) The Secretary shall conduct a national assessment of compensatory education assisted under this chapter, through independent studies and analysis by the National Institute of Education. The assessment shall include descriptions and assessments of the impact of (1) services delivered, (2) recipients of services, (3) background and training of teachers and staff, (4) allocation of funds (to school sites), (5) coordination with other programs, (6) effectiveness of programs on student's basic and higher order academic skills, school attendance, and future education, and (7) a national profile of the way in which local educational agencies implement activities described under section 556(b). The National Institute of Education shall consult with the Committee on Labor and Human Resources of the Senate and the Committee on Education and Labor of the House of Representatives in the design and implementation of the assessment required by this section. The National Institute of Education shall report to Congress the preliminary results of the assessment required by this section in January and July of 1986, and a final report shall be prepared and submitted to the Congress not later than January 1, 1987.

"(b) Notwithstanding any other provision of law or regulation, such reports shall not be subject to any review outside of the Department of Education before their transmittal to the Congress, but the President and the Secretary may make such additional recommendations to the Congress with respect to the assessment as they deem appropriate."

Index of Issues Reflected in the Congressional Mandate for the National Assessment of Chapter 1 and the Reports Prepared by the National Assessment Study Team

Mandated Reports of the National Assessment Study Team	Issues Reflected in the Congressional Mandate for ECIA Chapter 1						
	Services Delivered	Recipients of Services	Background and Training of Teachers and Staff	Allocation of Funds (to Schools)	Coordination With Other Programs	Effectiveness of Programs on Student's Basic and Higher Order Academic Skills, School Attendance, and Future Education	National Profile of the Way in Which Local Educational Agencies Implement Activities Described Under Section 556(b)
I. Poverty, Achievement and the Distribution of Compensatory Education Services. Washington, DC: U.S. Department of Education, 1986.							
Chapter 2: The Relationship Between Poverty and Achievement		X		X			
Chapter 3: Characteristics of Poor or Low Achieving Students		X					
Chapter 4: Program Beneficiaries	X	X					X
II. The Effectiveness of Chapter 1 Services. An Interim Report from the National Assessment of Chapter 1. Washington, DC: U.S. Department of Education, 1986.							
Chapter 2: Trends in the Achievement of Disadvantaged Children						X	
Chapter 3: Compensatory Education and Achievement Scores				X		X	
Chapter 4: Sustaining Achievement Through the Summer and Future Years						X	
Chapter 5: Project Characteristics and Student Achievement	X		X		X	X	X
III. The Current Operation of Chapter 1. Washington, DC: U.S. Department of Education, 1987.							
Chapter 2: The Distribution and Selection of Chapter 1 Schools and Students		X		X			X
Chapter 3: Educational Services Provided to Chapter 1 Students	X		X	X	X	X	X
Chapter 4: The Administration of Chapter 1	X	X					X
Chapter 5: Implications for Congress	X	X		X	X	X	X

APPENDIX B

NATIONAL ASSESSMENT OF CHAPTER 1 SURVEYS AND STUDIES

SURVEYS

A Study of Local Implementation of ECIA Chapter 1
(The District Survey and the State Survey)

Contractor: Research and Evaluation Associates, Inc., Washington, DC
Principal Investigators: Barbara I. Williams and Joan Michie
Contract #: 400-86-0025

Subcontractor: Westat, Inc., Rockville, MD
Key Staff: Judy Thorne
Project Officer: Ronald Anson, Chapter 1 Assessment

This national survey of 2,000 school districts included questions about the implementation Chapter 1. The survey included questions in the areas of:

- Selection of schools and students
- Program design and resource allocation
- Program evaluation
- Parent involvement
- Administration

The survey sample was designed to overlap with the sample of school districts surveyed in the 1981-82 District Practices Survey (Advanced Technology, Inc., 1983), thus permitting cross-time comparison in these districts.

In addition to the mailed questionnaire to 2,000 school districts, the survey included in-depth telephone interviews with 200 of the districts responding to the mailed questionnaire and telephone interviews with the 50 State Chapter 1 coordinators (referred to in the text as the State Survey).

National Survey of ECIA Chapter 1 Schools
(The School Survey)

Contractor:	Westat, Inc., Rockville, MD
Principal Investigator:	Judy Thorne
Contract #:	400-85-1014

Subcontractor:	RMC Research Corp., Hampton, NH
Key Staff:	Allen Schenk
Project Officer:	Gilbert N. Garcia, Chapter 1 Assessment

This survey collected information from principals in 1,300 schools across the country. Principals of Chapter 1 schools were asked about the characteristics of their schools and about their Chapter 1 program configurations. Chapter 1 teachers were surveyed by telephone about their own education and experience, the services they provide to Chapter 1 students, and the extent to which Chapter 1 services are coordinated with regular services. For comparison purposes, the survey asked similar questions of regular classroom teachers and teachers in other categorical programs, such as state compensatory education, services to limited-English-proficient students, and programs for mildly handicapped students.

The survey included:

- Elementary schools with Chapter 1 programs
    - Some with high concentrations of poverty
    - Some with high concentrations of limited-English-proficient students
- Elementary schools without Chapter 1 programs
    - Some with other kinds of compensatory education
    - Some with no compensatory education students but with disadvantaged students
    - Some with no compensatory education and with very few disadvantaged students
- Private elementary schools with Chapter 1 programs
- Middle schools and secondary schools
    - Some with Chapter 1 programs
    - Some with other compensatory education programs

Fast Response Survey (FRS) of Private School Students' Participation in Chapter 1

(The Private School Participation Survey)

Contractor:	Westat, Inc., Rockville, MD
Project Director:	Elizabeth Farris
Principal Investigator:	Lori Lewis
Project Officers:	Richard Jung, Chapter 1 Assessment Helen Ashwick, Center for Education Statistics, OERI
Contract #:	300-85-0133

This survey of 900 school districts collected information on the number of private school students participating in the Chapter 1 program as well as the location and time (e.g., before or after school) of such services. The survey obtained data on these and related issues for the 1984-85 and 1986-87 school years, permitting comparisons of levels and types of Chapter 1 services for private school students before and after the Supreme Court decision in Aguilar v. Felton. In this decision, the Court ruled that the provision of Chapter 1 instructional services in sectarian schools is unconstitutional.

Fast Response Survey of Recent Oversight Experience in ECIA Chapter 1 Programs (The Chapter 1 Oversight Survey)

Contractor: Westat, Inc., Rockville, MD
Principal Investigators: Elizabeth Farris, Mary Collins
Project Officers: Martin Orland, Chapter 1 Assessment
Helen Ashwick, Center for Education Statistics, OERI
Contract #: 300-85-0133

This survey of 700 school districts collected information on the number of Chapter 1 monitoring and auditing visits made between 1982-83 and 1985-86, what aspects of local practice were reviewed during these visits, and whether local administrators considered them to be more or less thorough than those conducted under ESEA Title I. The primary focus of the survey was on experiences with State oversight, particularly State auditing, where procedures in many SEAs had changed since Title I from program specific audits to broader organizationwide audits as required by Federal law.

ON-SITE STUDIES

State and Local Administration of the Chapter 1 Program
(The Administration Study)

Contractor:	Abt Associates, Inc., Cambridge, MA
Principal Investigators:	Eleanor Farrar and Mary Ann Millsap
Key Staff:	Bonnie Nutt-Powell, Nancy R. Wilber, Jennifer Greene and Diane Kell
Contract #:	400-85-1017
Subcontractor:	Policy Studies Associates, Washington, DC
Key Staff:	Brenda J. Turnbull and Ellen L. Marks
Project Officer:	Martin Orland, Chapter 1 Assessment

This study documented administrative practices in State and local educational agencies during the 1985-86 school year, including the identification of major changes occurring since Title I. Topics included:

- At the State level:
    - Monitoring and enforcement
    - Technical assistance
    - Application approval
    - Policies in areas where the Federal law has changed, such as parent involvement, comparability, and evaluation
- At the local level:
    - Needs assessment and evaluation
    - Program design decisionmaking
    - Funds allocation policies and practices
    - Parent involvement
    - Application and reporting activities

The study entailed visits to State educational agencies in 20 States, with intensive visits to nine of them. Researchers also visited three school districts in each of the nine States studied intensively.

Local Program Design and Decision Making Under Chapter 1 of ECIA (The Program Design Study)

Contractor:	SRI International, Menlo Park, CA
Principal Investigator:	Michael S. Knapp
Key Staff:	Craig H. Blakely, E. Deborah Jay and Patrick Shields
Contract #:	400-85-1029

Subcontractor:	Policy Studies Associates, Washington, DC
Key Staff:	Brenda J. Turnbull and Ellen L. Marks
Project Officer:	Ronald Anson, Chapter 1 Assessment

Under this contract, investigators determined how districts and schools make program design decisions for Chapter 1 projects and compared districts and schools that changed their approaches with others that did not. The study had two goals:

- To gain a better understanding of why districts and schools change or maintain key features of their Chapter 1 programs. The study examined the influences of:
    - Legislative change from Title I to Chapter 1
    - Shifts in State or local policies
    - Changes in budget contexts
    - Program design preferences of State or district administrators and teachers
    - Apprehension about Federal audits
    - Institutionalization of the Chapter 1 program
    - Conviction that the program is successful and working well
- To examine decisions to adopt or forego particular program design features of current public interest. Examples of such features are:
    - Programs in secondary schools
    - In-class program designs
    - Reliance on aides vs. teachers
    - Schoolwide projects
    - Changes in the intensity or grade levels of services
    - Parent involvement
    - The use of computers
    - Emphasis on higher order skills

The contractor conducted the study in 20 school districts and 60 schools.

School Districts' Allocation of Chapter 1 Resources (The Resource Allocation Study)

Contractor:	Educational Testing Service, Princeton, NJ
Principal Investigator:	Margaret E. Goertz
Key Staff:	Richard J. Copley and Margaret E. Hoppe
Contract #:	400-85-1030
Subcontractor:	Gaffney, Anspach, Schember, Klimaski and Marks, P.C., Washington, DC
Key Staff:	Michael J. Gaffney and Daniel M. Schember
Subcontractor:	Decision Resources, Inc., Washington, DC
Key Staff:	Ann Milne and Myron Schwartz
Project Officer:	Martin Orland, Chapter 1 Assessment

Investigators examined the decisionmaking processes used to allocate resources among schools and the resulting resource distributions (e.g., the number of teachers and aides per child).

The study included examination of:

- The influence of State and Federal laws on local decisions
- The effect of different decisionmaking strategies on patterns of resource allocation
- The effect of different resource allocation strategies on economically and educationally disadvantaged schools and students
- Relationships of Chapter 1 resource allocation patterns to (1) the enrollment of multiple-needs students and (2) the existence of multiple Federal and State programs in a single district
- Changes in resource allocation from Title I to Chapter 1

The contractor visited 17 districts in eight States. Investigators interviewed both district and school staff regarding their decisionmaking and documented actual resource distributions that resulted from those decisions.

A Study of Targeting Practices Used in the Chapter 1 Program (The Targeting Study)

Contractor:	SRA Technologies, Inc., Mountain View, CA
Principal Investigator:	Christine T. Wood
Key Staff:	Camille Marder, Nona N. Gamel and Denise Douglas
Contract #:	400-85-1016
Subcontractor:	Northwest Regional Educational Laboratory, Portland, OR
Key Staff:	Roy Gabriel, Alan Davis, Gary Estes, Linde Paule and Flora Yen
Project Officer:	Richard Jung, Chapter 1 Assessment

Under this contract, investigators examined the net effects of Chapter 1 school and student selection procedures on the characteristics of the students served in the program. Using the district data bases, the study analyzed data on poverty, achievement, grade point average, attendance, grade retention, and participation in other categorical programs for Chapter 1 and non-Chapter 1 students in 30 districts. The five major questions addressed were:

- How do districts determine which schools and students receive program services?
- What rationale underlies district policies and practices for selecting project schools and participants?
- How do Chapter 1 schools and students differ from non-Chapter 1 schools and students?
- Are different types of students served under Chapter 1 than were served under Title I?
- What are the effects of varying school and student selection practices on the characteristics of students served in the program?

The thirty districts visited differed according to size, urbanicity, region, poverty level, concentration of limited-English-proficient students, and the presence or absence of non-Federal compensatory education programs.

A Study of the Whole-Day Instructional Experiences of Chapter 1 Students (The Whole School Day Study)

Contractor:	Far West Educational Laboratory, San Francisco, CA
Principal Investigators:	Brian Rowan and Larry Guthrie
Key Staff:	Ginnie V. Lee and Grace P. Guthrie
Project Officers:	Randy E. Demaline and Gilbert N. Garcia, Chapter 1 Assessment
Contract #:	400-85-1015

This study examined the configurations of services that Chapter 1 students receive over the course of a school day and a school week. They obtained information on:

- Students' exposure to various instructional topics
- The coordination of services across service providers
- Instructional quality
- The regular classroom services that Chapter 1 students miss due to Chapter 1 participation
- Teacher and student perceptions of the role and purpose of Chapter 1

The contractor visited 24 schools located in six geographic regions. The schools encompassed elementary, middle, and secondary levels. Some were private schools. Within each school the contractor selected and followed eight students for a day and two for a week. The students varied in grade and achievement levels and in the configuration of services they received.

Analyses of School District and State Education Agency Chapter 1 Student Records

Contractor: Pennsylvania State Department of Education
Principal Investigator: Carol Bellew
Contract #: 400-86-0028

Contractor: Washington State Department of Education with the Northwest Regional Education Laboratory and Olympia Washington School District
Principal Investigators: Kathleen Plato, Dennis Deck, Gordon Ensigh, Duncan MacQuairie and Patrcia Neill-Carlton
Key Staff: Alfred Rasp Jr., Stephen Murray and Michael Lafferty
Contract #: 400-86-0027

Contractor: Research and Training Associates, Overland Park, KS with Lincoln, Nebraska and St. Louis, MO School Districts.
Principal Investigator: Judy Pfannenstiel
Contract #: 400-86-0030

Contractor: Mesa Arizona School District
Principal Investigators: Steve Schrankel and James DeGracie
Contract #: 400-86-0029

Contractor: Montgomery County Maryland School District
Principal Investigator: Rita Kirshstein
Contract #: 400-86-0032

Contractor: Columbus Ohio School District
Principal Investigators: Richard Amorose, Roger D. Brown, John A. Duffy, Kathy L. Morgan and Gary Thompson
Contract #: 400-86-0031

Project Officer: Gilbert N. Garcia, Chapter 1 Assessment

These six independent studies of school district Chapter 1 records were conducted to determine the patterns of services received by Chapter 1 students over the span of time permissible by the available data. Some of the contractors also analyzed available data to determine the long-term achievement and progress of students served over multiple school years.

COMMISSIONED PAPERS

Designs for Compensatory Education Conference

Contractor:	Research & Evaluation Associates, Inc., Washington, DC
Principal Investigator:	Barbara I. Williams
Key Staff:	Peggy A. Richmond and Beverly J. Mason
Project Officer:	Randy E. Demaline and Ronald Anson, Chapter 1 Assessment

The purpose of this contract was to commission a series of literature reviews and scholarly papers on effective educational practices for low achieving students and to identify practices that might be applied in Chapter 1 programs settings. The papers addressed five major areas of interest:

- Selecting students and services
- Program and staffing structures
- Curriculum and instruction
- Parent involvement
- Relationship between Chapter 1 and regular school programs

The scholars were convened to discuss the papers and to derive general principles of effective compensatory education. Conference participants included: Marilyn Jager Adams (BBN Laboratories, Inc.), Richard L. Allington (State University of New York), Francis X. Archambault, Jr. (University of Connecticut), David Berliner (University of Arizona), Jere Brophy (Michigan State University), Robert Calfee (Stanford University), William W. Cooley (University of Pittsburgh), Harris M. Cooper (University of Missouri), Larry Cuban (Stanford University), Walter Doyle (University of Arizona), Michael J. Gaffney (Gaffney, Anspach, Schember, Klimaski, and Marks), Alan Ginsburg (U.S. Department of Education), Edmond Gordon (Yale University), Gary Griffin (University of Illinois), Maureen T. Hallinan (University of Notre Dame), Barbara Heyns (New York University), Freda M. Holley (Austin Independent School District), Peter Johnston (State University of New York), Richard K. Jung (U.S. Department of Education), Adriana de Kanter (U.S. Department of Education), Mary M. Kennedy (Michigan State University), Dan C. Lortie (University of Chicago), Richard A. McCann (Research for Better Schools, Inc.), Milbrey W. McLaughlin (Stanford University), Ann M. Milne (Decision Resources Corporation), Donald R. Moore (Designs for Change), Martin E. Orland (U.S. Department of Education), Paul Peterson (Brookings Institution), A. Harry Passow (Columbia University, Teachers College), Penelope L. Peterson (University of Wisconsin), Dorothy Rich (Home and School Institute), Thomas A. Romberg (University of Wisconsin), Thomas C. Rosica (School District of Philadelphia), Patrick M. Shields (Stanford University), Lee Shulman (Stanford University), Marshall S. Smith (Stanford University), Louise Cherry Wilkinson (Rutgers University) and Karen K. Zumwalt (Columbia University, Teachers College). The document which resulted from the conference proceedings is "Design for Compensatory Education: Conference Proceedings and Papers," December 1986.

Alternative Strategies in Compensatory Education Conference

Contractor:	Research and Evaluation Associates, Inc., Washington, DC
Principal Investigator:	Barbara I. Williams and Dennis Doyle
Project Officer:	Ronald Anson, Chapter 1 Assessment

Independent scholars reviewed the extant literature and wrote papers on alternative strategies for the provision of educational services to disadvantaged students. The papers were presented and critiqued by other scholars at a conference held in November, 1986. The areas addressed included:

- The Federal role in compensatory education
- Selected issues of access and accountability
- Lessons for implementation

The papers will be published as a book in the fall of 1987. The conference panel included: John Chubb (The Brookings Institution), Constance Clayton (Philadelphia Public Schools), Bruce Cooper (Fordham University), Larry Cuban (Stanford University), Denis P. Doyle (The Hudson Institute), Richard Elmore (Michigan State University), Susan Fuhrman (Rutgers University), Nathan Glazer (Harvard University), Charles Glenn (Massachusetts Department of Education), Paul Hill (The Rand Corporation), David Kirp (University of California-Berkeley), Michael Kirst (Stanford University), Robert Koff (State University of New York-Albany), Milbrey McLaughlin (Stanford University), Allan Odden (University of Southern California), Paul Peterson (The Brookings Institution), Joan Davis Ratteray (The Institute of Independent Education), David Savage (The Los Angeles Times) and Marshall S. Smith (Stanford University).

TECHNICAL SUPPORT

Data Analysis and Technical Support Services

Contractor: Decision Resources Corporation, Washington, DC
Principal Investigators: Mary Moore
Key Staff: Janie Funkhouser
Donna Morrison
David Myers
Contract #: 400-85-1018

Subcontractor: Policy Studies Associates, Washington, DC
Key Staff: Richard Apling
Elizabeth Reisner
Brenda Turnbull
Project Officer: Beatrice F. Birman, Chapter 1 Assessment

The purpose of this technical support contract was to carry out the following activities for the Chapter 1 National Assessment staff:

- Create a data library
- Conduct computer analyses of large data bases (e.g., Census, Sustaining Effects Study)
- Conduct literature reviews and issues analyses
- Coordinate data collection activities and analyses across major data bases and other procured studies
- Coordinate the production of each of the reports prepared by the National Assessment staff

The contractor has prepared or coordinated the preparation of the following technical reports for the assessment staff.

Chaikind, Stephen. (1985) The effects of short-term and long-term poverty on educational attainment of children.

Chaikind, Stephen. (1986) An analytical review of the evidence on Chapter 1 cost-effectiveness.

Funkhouser, Janie E., & Mary T. Moore. (1985). Summary of state compensatory education programs.

Funkhouser, Janie E., Joan S. Michie, & Mary T. Moore. (1987) Federal administration of Chapter 1, ECIA staffing and financial support substudy.

Funkhouser, Janie E., & Mary T. Moore. (1986). *A study of magnet schools and the Chapter 1 program for disadvantaged students*.

Gaffney, Michael J., & Daniel M. Schember. (1987) *An analysis of the internal consistency of selected aspects of the legal framework for Chapter 1, ECIA*.

Michie, Joan S., & Mary T. Moore. (1985) *State profiles of ESEA Title I/ECIA Chapter 1*.

Myers, David E. (1986) *An analysis of the impact of Title I on reading and math achievement of elementary school aged children*.

Myers, David E. (1986) *The relationship between school poverty concentration and students' reading and math achievement and learning*.

Peterson, James L., & Nicholas Zill. (1985) *Technical notes to the tables on children, education and poverty*.

Reisner, Elizabeth R., & Ellen L. Marks. (1987) *The federal administration of evaluation, program improvement, and technical assistance under ECIA Chapter 1*.

Wang, Ming-Mei. (1986) *Report on poverty and achievement level of Title I/Chapter 1 participants--a reanalysis of SES data*.

APPENDIX C

ADMINISTRATIVE HISTORY AND STATUS OF THE NATIONAL ASSESSMENT

ADMINISTRATIVE HISTORY AND STATUS OF THE NATIONAL ASSESSMENT

The National Assessment of Chapter 1 was legislated as part of the Technical Amendments to the Education Consolidation and Improvement Act of 1981. Enacted in December 1983, these amendments required the National Institute of Education (NIE) to provide Congress with a final report by January 1987. The major milestones for this National Assessment are listed in Table 1. The remainder of this administrative status report reviews each aspect of the administration of the National Assessment of Chapter 1.

MILESTONES

Following passage of the legislation, NIE hired a Study Director to design the National Assessment of Chapter 1 and to oversee its implementation. The Study Director joined NIE in April 1984. A new Study Director was appointed in April 1986 when the first Director left the study.

During the summer of 1984, the Study Director discussed the study's purposes and Congress' information needs with Congressional staff members; with Department of Education staff, both within the Chapter 1 program and in the Department's Office of Planning, Budget, and Evaluation; with members of the Office of Management and Budget; the Congressional Research Service; the Congressional Budget Office; the General Accounting Office; representatives of many educational associations and interest groups in the Washington area; and with a variety of educational researchers and program evaluators.

On the basis of these discussions, NIE developed a plan for the National Assessment of Chapter 1. The plan was reviewed by Department of Education officials in late summer of 1984 and in October it was presented to Congressional staff. Two

TABLE 1

Milestones for the National Assessment of the Chapter 1 Program

December 1983	Congress passes legislation requiring the National Institute of Education to conduct a National Assessment of the Chapter 1 program.
April 1984	National Institute of Education hires a Director to oversee the National Assessment.
October 1984	National Institute of Education presents a Study Plan to the Congress.
December 1984	National Institute of Education completes hiring a Study Team to implement the Study Plan.
May - September 1985	National Institute of Education procures a series of independent studies for the National Assessment through competitive contracts.
October 1985	National Institute of Education is reorganized into the Office of Educational Research and Improvement (OERI). The National Assessment is housed in the Office of Research, OERI.
January 1986	Office of Research submits First Interim Report, as required by the Congress, for the National Assessment of Chapter 1.
April 1986	New Study Director appointed.
July 1986	Office of Research submits Second Interim Report for the National Assessment of Chapter 1.
March 1987	Preliminary Findings of the National Assessment submitted to the U.S. House of Representatives Subcommittee on Elementary, Secondary, and Vocational Education. The document was subsequently distributed to the Senate Subcommittee on Elementary and Secondary Education.
September 1987	Office of Research submits Final Report for the National Assessment of the Chapter 1 program.

briefings were held, one for Senate staff and one for House staff. Following these briefings, further changes were made in the plan.

In November 1984, the final plan was submitted to Congress and NIE began in earnest to implement it. Concurrently, NIE began forming a Study Team to implement the plan. By January 1985, a study team of researchers and analysts from within and outside the Department was in place.

The Study Plan outlined a number of separate investigative components which, taken together, would provide information about the full range of questions and issues that had been raised during the preceding summer. The first stages of implementation of the Study Plan consisted primarily of letting contracts for portions of the work. The level of effort required by the Study Plan did not make in-house work feasible, and contracted studies would assure a level of independence and objectivity necessary for credibility of the overall study.

Requests for proposals for these studies were prepared throughout early 1985, and advertised through the spring of that year. Contracts for the studies (described in Appendix B) were awarded throughout the summer of 1985. Researchers began collecting data during the 1985-86 school year and then analyzed and reported the results in the summer and fall of 1986. Analysis of data from the two nationwide surveys, one of districts and one of schools, continued through the winter of 1986. In some cases, results were still being provided in the spring of 1987.

As soon as initial results became available, the Study team began writing its final report. Writing continued as more results became available. Preliminary findings were presented at hearings and briefings for the U.S. House of Representatives Subcommittee on Elementary, Secondary, and Vocational Education in March 1987, and the "Preliminary Findings of the National Assessment of Chapter 1" report was subsequently submitted to the Senate Subcommittee on Elementary and Secondary Education during that month. The final version of the report was delivered to Congress in September 1987.

In October 1985, NIE was reorganized as the Office of Educational Research and Improvement (OERI). Since then, the Chapter 1 Study Team has been housed in the Office of Research (OR) within the Office for Educational Research and Improvement.

BUDGET

The budget for the National Assessment proved to be one of its most complicated and problematic features for three reasons. First, the study was expected to be funded from three sources, thus requiring three separate budget lines rather than one. Second, one of those sources, the Chapter 1 budget, is forward-funded. This means that its budget does not normally become available until three-quarters of the way through the fiscal year. For fiscal year 1985, Chapter 1 funds could not contribute to the study until well into the fiscal year. For fiscal year 1986, the Department asked Congress to make a special provision in the Chapter 1 budget that would enable Chapter 1 funds being used for this National Assessment to become available earlier. The special legislation resulting from that request greatly facilitated the progress of the National Assessment. Finally, the third source of funds, the Secretary's Discretionary Fund, was impounded by the Federal District court in Chicago, and therefore was not available at the time or in the amount that the Chapter 1 Study Team had anticipated. As a result of these budgetary difficulties, the Study Team solicited funds from programs within the Department of Education other than those specified by the Congress. NIE signed agreements with the Office of Bilingual Education and Minority Languages Affairs and the Office of Special Education and Rehabilitative Services such that these offices agreed to support studies of topics of mutual interest. However, as a result of the budgetary difficulties, many procurements were postponed because funds were not available when originally anticipated. Finally, virtually every project was incrementally funded so that those funds that were available at first could be used to start as many projects as possible.

Table 2 summarizes the contributions made by each funding source.

TABLE 2

Contributions to the National Assessment of Chapter 1
(in thousands)

Funding Source	FY '83	FY '84	FY '85	FY '86	FY'87	Total
Chapter 1	$376	$400	$1,500	$1,100	$250	$3,626
NIE		300	450	1,481		2,231
Chapter 2 (Secretary's Fund)			800	450		1,250
Office at Bilingual Education & Minority Languages Affairs			350	75		425
Office of Special Education and Rehabilitative Services			200			200
TOTAL	$376	$700	$3,300	$3,106	$250	$7,732

FUTURE PLANS

The staff of the National Assessment plans to present a series of separate special-topic reports during the remainder of 1987 and 1988 to enhance the findings presented in the third report. Other topics being considered for special reports are: the provision of Chapter 1 services to Limited-English-Proficient students and to special education students; the role of States in providing compensatory education services; and services provided by Chapter 1 schoolwide projects.

APPENDIX D

DESCRIPTION OF SCHOOL AND DISTRICT SURVEY SAMPLES, STANDARD ERROR CALCULATIONS AND SIGNIFICANCE TESTS

DESCRIPTION OF SCHOOL AND DISTRICT SURVEY SAMPLES, STANDARD ERROR CALCULATIONS AND SIGNIFICANCE TESTS

This technical appendix contains: a general description of the design and procedures of the School Survey and District Survey conducted for the National Assessment of Chapter 1, a description of the methods for computing standard errors and tests of significance for this report, support tables that provide standard errors for estimates reported in figures and tables, and a list of standard errors for estimates cited in the text, but not cited in figures or tables.

National Survey of ECIA Chapter 1 Schools: Design and Procedures

The School Survey was based on a sample of 1,200 elementary and secondary schools selected from a random, stratified sample of primary sampling units (PSUs) composed of school districts. Approximately 4,000 respondents were selected from these schools to obtain profiles which were nationally representative of Chapter 1 elementary and secondary schools as well as of all elementary schools. In addition, data from these respondents were used to estimate variations among Chapter 1 schools and all elementary schools as well as between Chapter 1 and non-Chapter 1 schools along selected dimensions of interest, such as school poverty rates.

Sample Design and Weighting Coefficients

Selection of School Districts

The sampling frame employed in the selection of sample school districts was the 1985 Quality Education Data (QED) school file aggregated to the district level. This file contained a comprehensive and current listing of school districts and characteristics of interest.

To achieve adequate representation of different types of school districts, three stratification variables were employed for organizing the district listings prior to selection: region, urbanicity, and Orshansky poverty index. Region was assigned to a school district in accordance with the four Census regions: Northeast, North Central, South, and West. Urbanicity, as contained on the QED tape, codes a school district as being located in an urban area, a suburban area, or rural area. Three groups were identified by the third stratification variable, the Orshansky poverty index, available from the Census by school district. The three levels were: (1) districts with 12 percent or fewer students below the poverty level, (2) districts with more than 12 percent but less than 25 percent of students below the poverty level, and (3) districts with 25 percent of more students below the poverty level. Thirty-six strata were created by the use of the three stratifying variables.

Primary sampling units (PSUs) were formed from school districts within these strata. A school district with 15 or more schools constituted a PSU. Within each stratum, districts with fewer than 15 schools were combined to form PSUs. School districts within a State were joined until the combined number of schools was at least 15. These PSUs, therefore, had a minimum number of 15 schools though the number of school districts they represented varied somewhat.

The sample of 71 PSUs was allocated to the strata in proportion to the numbers of teachers each stratum contained. The selection of PSUs within strata was accomplished by systematic random sampling with probabilities proportionate to size (PPS), with size defined as the total number of teachers in its school district(s). The sample of 71 PSUs drawn in this manner yielded 224 school districts.

Second Stage Sampling: Schools

A total of 1,200 schools was selected from the first-stage sample of school districts. Of the 1,200 schools, 700 were from the public elementary stratum, 100 from the private elementary stratum, and 300 from the public secondary stratum (including middle schools). In addition, 50 Chapter 1 public schools serving limited English proficient students and 50 Chapter 1 public schools serving very high concentrations of low-income students were distributed across elementary and secondary levels. The school districts were ordered by characteristics of importance to ensure adequate representation of these types of districts.

Sampling Frame for Schools. Once a district had been selected, a copy of its most recent Chapter 1 application was obtained from the appropriate State Chapter 1 Office. This provided the basic stratifying information for the school sampling frame, as described in the next section. Stratifying variables included grade span, sources of funding, number of students with limited English proficiency (LEP), and poverty level of school. These data were obtained for all public schools in the district, and for private schools with students who were receiving Chapter 1 services.

Stratification Scheme for Schools. The school sampling frame was stratified by the following characteristics: public/private control; Chapter 1/non-Chapter 1; elementary/middle/secondary; within the public stratum by presence/absence of LEP population and by presence/absence of high degree of poverty; and within the non-Chapter 1 stratum by student population similarity/nonsimilarity to Chapter 1 poverty characteristics.

Allocation of Schools to Strata. The sample of 1,200 schools was allocated to the strata as described below. Because one of the sampled private schools was no longer in operation, the final sample contained 99 rather than 100 private schools. The final sample, then contained 1,199 schools across 165 school districts. It was not a condition that schools be selected from each of the 224 school districts in the sample.

Eleven hundred public schools were selected: 600 Chapter 1 and 500 non-Chapter 1 schools. Of the 600 public Chapter 1 schools, 50 were selected as schools with particularly high concentrations (>85 percent) of low-income children, and 50 were selected as LEP population schools. The final distribution of Chapter 1 public schools was as follows: 385 Chapter 1 elementary, 100 Chapter 1 middle, and 115 Chapter 1 secondary schools.

The sample of 500 public non-Chapter 1 schools contained 300 schools with poverty populations similar to Chapter 1 schools (200 elementary and 100 middle/ secondary schools) and 200 (elementary) schools with nonsimilar populations. Although the non-Chapter 1 sample was not drawn with regard to LEP population, the non-Chapter 1 portion of the sample contained 45 elementary schools with 200 or more LEP students in each.

The 99 sampled private elementary schools were selected from district lists of private schools which, as of the spring of 1985, were projected to contain students who would be receiving Chapter 1 services during the 1985-86 school year. Since a number of changes were made in the way in which Chapter 1 services were provided to non-public school students during the course of this school year, a number of the sample private schools no longer had students receiving Chapter 1 services when the survey took place. For these schools, responses to the principal questionnaire were obtained, but attempts to interview Chapter 1 or regular classroom teachers were not made.

Third Stage Sampling: Respondents

The final stage in selecting the sample for this study involved the stratified random sampling of staff members from within the sampled schools. The principal of each school was selected as a respondent, along with a variable number of teachers. The exact method and sample size for teachers within a school varied according to characteristics of the school.

Sampling Frame for Respondents. Teaching staff lists generated by the schools' principals were used for the random selection of respondents from sampled schools. Teachers were categorized by respondent type as detailed below. Because the sampling design required that a teacher be listed in only one category, an order of priority was employed, and each teacher was listed in the first category in which she/he qualified. This priority ordering of teachers was as follows:

- Chapter 1;
- State compensatory education;
- Other compensatory or remedial education
- Special services to LEP students
- Services to mildly handicapped students; and
- Regular classroom (a teacher having at least one student receiving services from a teacher in one of the above categories).

Selection of Respondents. Random sampling of respondents from teacher lists was done by the principal of each school and a telephone interviewer. Once the principal had listed the school's teachers according to the above categories, the telephone interviewer provided random numbers for the selection of up to two Chapter 1 teachers (or one Chapter 1 aide if there were no qualifying Chapter 1 teachers) and the selection of one teacher in each of the other existing categories in the given school.

In some school districts, the Chapter 1 district office preferred to supply the names of Chapter 1 teachers providing services in private schools, rather than have this information obtained from the private schools directly. In those cases, Chapter 1 teacher lists were compiled for each sampled private school in the district, and selection of up to two Chapter 1 teachers for each school was done randomly.

Instrument Design and Pretest

Data Collection Modes

The first step in eliciting school cooperation was sending a letter to each school that laid out the plan for sampling and subsequent interviewing. Because the sample required schools to be aware of special teacher definitions, as well as the hierarchical sampling scheme, detailed instructions were sent with the initial mailing. In the interest of time, the strategy was for principals (or the coordinators they designated) to assemble lists of teachers in appropriate categories, and for telephone interviewers to sample teachers from these listings (using random numbers) over the telephone.

Questionnaire Design

A mail questionnaire with the following content areas was developed to collect data from public school principals: a description of Chapter 1 services, a description of the school's regular instructional program, a description of other special programs in the school (compensatory education other than Chapter 1, services for limited-English-proficient (LEP) students, and services for mildly handicapped students), staff characteristics, mechanisms for coordinating services within the school, and a general description of the school. A subset of the same items constituted the private-school version of the principal questionnaire (omitting the descriptions of services other than Chapter 1 and the regular instructional program).

Five teacher questionnaires were developed for interviewing the five categories of teachers who were selected for the study within the sampled schools. Teachers were asked about: the services of the program in which they taught (Chapter 1, other compensatory or remedial education, limited-English-proficient, mildly handicapped, or the regular instructional program); their education, training, and experience; and the coordination of their services with other services in the school.

Data Collection Activities in Support of Sampling

Communication with States

The communication protocol followed for this study included notifying States regarding which districts were sampled as part of the primary sampling units, and notifying districts and States regarding sampled schools.

Notifying States of Selected Districts

At the request of the National Assessment of Chapter 1 Study staff, each State's chief school officer had already appointed a liaison to all of the Chapter 1 studies--most often the State's Chapter 1 Director. The first stage of sampling resulted in a sample of 224 districts in 30 States. Each State liaison was notified of the sampled districts within his/her individual State. At the same time, a copy of the most recent Chapter 1 funding application submitted by each identified districts was requested--for the purpose of identifying the Chapter 1 and non-Chapter 1 schools within each district.

Notifying States and Districts of Selected Schools

The second stage of sampling resulted in a sample of 1,199 schools in 30 States. Each district was notified of the sampled schools in that district; at the same time, each State liaison received a copy of the district notification letter and list of sampled schools for each district in that State.

Communication with Sampled Schools

As soon as the sample of 1,199 schools was drawn, a listing of the sampled schools was sent to the relevant district and to the state Chapter 1 liaison, followed a week later by a letter to the school. The mailout also asked the principal to name a coordinator to help in the teacher sampling and later in scheduling teacher interviews. The letter also provided instructions for compiling the lists of teachers for use in randomly selecting participating teachers (in the subsequent "sampling call").

Data Collection: Interviews of Principals and Teachers

Principals and teachers in 1,199 Chapter 1 and non-Chapter 1 schools nationwide were surveyed during the Spring of 1986. Principals responded to a mail questionnaire, while teacher interviews were conducted over the telephone. A total of 1,145 principal questionnaires were mailed, 1,046 of these to public school principals and 99 to private school principals.

Telephone interviews with the sampled teachers were conducted during April and May 1986. A staff of 30 telephone interviewers was trained to conduct these interviews.

Sample Membership and Response Rates

School Level Participation Rates

The percentage of schools that agreed to participate in the study was as follows: 92.6 percent of the private schools, 97.0 percent of the Chapter 1 public schools, and 90.3 percent of the non-Chapter 1 public schools.

The 1,110 participating schools provided the information necessary for sampling teacher respondents in carefully specified categories, and teachers were sampled in 1,044 of those schools. In the remaining 66 schools, no teachers were eligible for any of the study's teacher categories. Those schools remained in the sample and were asked to respond to the principal questionnaire; however, no teachers were sampled or interviewed there.

Principal Questionnaire Response Rates

In all, principal questionnaires were mailed to 1,145 schools. A response rate of 87.4 percent was attained overall for the principal questionnaire with individual item response rates consistently above 90 percent. On average, response rates were slightly higher in Chapter 1 schools than in non-Chapter 1 schools.

Teacher Survey Response Rates

Teacher interviews were conducted by telephone with teachers sampled within the six teacher categories. All together, 3,134 teachers were sampled, with an average of three teachers sampled per school. More than 97 percent of the 3,134 sampled teachers responded to the telephone interview with individual item response rates consistently over 95 percent.

Population Estimation Procedures

Estimates of several types, including estimates of totals, percentages, means and medians were made for the National Survey of ECIA Chapter 1 Schools. Estimates of totals were derived from weighted sums of the values reported by responding schools or teachers. Percentages and means were then estimated as the ratios of two estimates of totals. The weights used depended on the probabilities of selection of the schools or teachers and on the rates of response in the strata of the samples.

National Survey of School Districts Receiving ECIA Chapter 1: Design and Procedures

The District Survey was conducted during the Spring of 1986, based on a nationally representative sample of 2,200 local school districts (for the mail survey) and a subsample of 267 of those districts (for the telephone survey). Of the 2,200 districts sampled, 2,161 were currently receiving Chapter 1 funds and were thus eligible to complete the questionnaire. Surveys were completed by local Chapter 1 coordinators or officials in the district who were considered most knowledgeable about the program. The survey results provide nationally representative estimates of district Chapter 1 policies, practices and attitudes as well as of variations along selected dimensions of interest such as district poverty rates.

Sample Design and Weighting Coefficients

Selection of School Districts

The sample of 2,200 public school districts was drawn from a population file created from the 1985 updated version of the Quality Education Data (QED), school district file.

In determining the sample design for the Chapter 1 District Survey, a number of factors were taken into consideration. These were:

- The desire to obtain estimates of reasonable precision for districts falling in different size classifications, as well as for estimates at the national level.
- The desire to incorporate the Orshansky poverty measure criterion into the stratification scheme, in an effort to help secure an adequate representation of those districts at the higher end of the poverty scale.
- The desire to send out approximately 2,000 questionnaires nationwide, understanding that roughly 12 percent of all districts on the sampling frame will be non-Chapter 1 districts.

Based on these considerations, the sampling frame was partitioned into 24 strata, 8 enrollment size classes and 3 classes based on the Orshansky measures of poverty.

The classes were defined as follows:

Enrollment Size Class

25,000 and over
10,000 - 24,999
5,000 - 9,999
2,500 - 4,999
1,000 - 2,499
600 - 999
300 - 999
1 - 299

Orshansky Poverty Measure Class

25.0 percent and over
12 - 24.9 percent
0 - 11.9 percent

The enrollment and poverty classes were identical to those employed in a 1981 survey of local program administrators (Advanced Technology, 1983). This was done to facilitate within-class longitudinal comparisons for selected items common to both surveys.

Two thousand two hundred districts were selected from this sample frame. Because a sufficient number of districts from the smallest enrollment classes were desired, the allocation for the six smallest enrollment size classes was assigned proportionate to the square root of the average enrollment size for a district within an enrollment class (rather than proportionate to the average enrollment size itself). Districts from the two largest enrollment size classes were taken with certainty.

The allocation scheme appears below:

Enrollment Size Class	Population Size	Number to Districts to be Selected
25,000 and over	167	167
10,000 - 24,999	452	452
5,000 - 9,999	957	542
2,500 - 4,999	1,931	386
1,000 - 2,499	3,561	264
600 - 999	1,825	183
300 - 599	2,316	136
1 - 299	3,709	70

Within the three smallest enrollment size classes, the sampling rates were determined so that the desired sample size for enrollment class "i" would be obtained while oversampling poorer districts. Orshansky class "0-11.9 percent" was sampled at rate r_i, Orshansky class 12-24.9 percent was sampled at rate 1.5 r_i, and Orshansky class "25 percent and over" was sampled at rate $2r_i$. In so doing, the sampling variability for national estimates was increased slightly while the number of sampled districts in enrollment class groups "1 to 1,000" within an Orshansky measure of "25 percent or more" was increased by 50 percent (from 62 to 102), thus increasing the likelihood of eligible districts being selected and increasing the precision of estimates based on the higher Orshansky classes. The five largest enrollment classes were sampled with equal probability of selection within a class.

Once the sample was selected, a systematic assignment of questionnaire types was made. Each consecutive grouping of three sampled districts was assigned to receive questionnaire types C, A, and B in that order throughout the list of all sampled districts. Finally, a systematic (equal probability) sample of 267 from the 2,200 sampled districts was selected for participation in the telephone survey associated with the main survey. The mail survey sample districts were arranged in selection order prior to drawing the subsample, thus assuring the representation of original stratification characteristics within the telephone survey districts as well.

Weighting Coefficients

The weights for the full sample are very straightforward. In each enrollment group/poverty group cell a systematic random sample was drawn with each district in the cell having the same probability of selection. The probability of selection of a district in a cell is simply the number of districts sampled from the cell divided by the number of districts in the cell. The unadjusted weight is the inverse of this number.

A nonresponse adjustment based on the number of nonresponding districts in a cell was slight because there was so little nonresponse. No adjustments were made for item nonresponse because individual item response rates were consistently between 85 and 95 percent.

Most data items appear in only two of the three questionnaires because it was felt that the burden on the districts would be too great if all items were asked of all districts. Questionnaire A contains some items that are common to the items on questionnaire B and another set common to questionnaire C. The questionnaires were assigned systematically to the units within a cell, so each questionnaire is a stratified, systematic sample of size one-third of the full sample.

Instrument Design

The mail survey instruments consisted of three versions (A, B, and C) of a questionnaire, containing a total of 79 items. The sample of 2,200 districts was randomly divided into three subsamples, each of which received one version of the questionnaire. Twenty-two of the items appeared on all three versions; the remaining 57 items appeared on two versions each. Thus, each item was contained in at least two, if not three, of the questionnaires; and each questionnaire was received by one-third of the sample.

The topics covered by each questionnaire are listed below:

Version A:

- Background information
- Selecting attendance areas, schools, and students
- Program design
- Program evaluation, assessment of sustained effects, and needs assessment
- General information

- Program management (partial)

Version B:

- Background information
- Selecting attendance areas, schools, and students
- Parental involvement
- Program management
- General information

Version C:

- Background information
- Program design
- Program evaluation, assessment of sustained effects, and needs assessment
- Parental involvement
- Program management
- General information

As noted earlier, a subset of items was replicated from a 1981 survey of local program administrators (Advanced Technology, 1983) to allow for comparisons over time in selected areas of interest.

As an adjunct to the mail questionnaires, a set of "key items" was prepared for each version, for administration by telephone to those districts who were unable or unwilling to respond to the complete mail questionnaire during the data collection period.

Data Collection Procedures and Response Statistics

The survey procedures included letters of notification sent to State and district offices, letters and self-administered mail questionnaires distributed to Chapter 1

Coordinators in sampled districts, postcard reminders, 20 minute key item followup to nonrespondents conducted by telephone, and telephone data retrieval.

Approximately one week before the Chapter 1 District Survey began, letters describing the nature and importance of the study were sent to State Chapter 1 liaisons. This letter included a list of all districts sampled in each liaison's State. Letters were also sent to district superintendents in all selected districts.

Postcard Prompt

Approximately 10 days after the initial mailing, all districts were sent a postcard reminder asking them to complete and return the questionnaire. The postcard provided a toll-free number and the name of the survey operations manager to contact in the event that a questionnaire had not been received by the district. Questionnaires were remailed immediately to all respondents requesting another copy.

Telephone Prompts

Telephone prompt calls were made to all districts that had not responded to the initial mailings. A response rate of 88 percent was achieved. Chapter 1 district coordinators who had not returned questionnaires were contacted to participate in a 20 minute interview of key items appearing on the original questionnaire version for which their district had been selected. These interviews increased the response rate by 11 percent, to 99 percent for key survey items. Of particular importance, key item data were obtained from some very large districts which otherwise would have been lost. Responses were evenly distributed across the three questionnaire versions.

Population Estimation Procedures

Estimates of several types, including estimates of totals, percentages and means were made for the National Survey of School Districts receiving ECIA Chapter 1. Estimates of totals were derived from weighted sums of the values reported by district officials. Percentages and means were then estimated as the ratios of two estimates of totals. The weights depended on probability of selection and on the rates of response in sample strata.

Sampling Error Calculation and Significance Tests

Methods Used for the National Survey of ECIA Chapter 1 Schools

Sampling Error Calculation

The sampling errors of survey estimates were computed by a modified balanced repeated replication (BRR) method employing balanced half-samples. The procedure required a design with two primary units per stratum, or the appropriate association of sampling units with one of two pairs. Half-samples were then formed by selecting one unit from the pair in each stratum. A replicate estimate of the statistic of interest was computed by first slightly decreasing the base weights for the cases in one half-sample and slightly increasing them in the complimentary half-sample, then repeating all stages of adjustments to the weights, and finally recomputing the statistic with the re-adjusted weights. Each different way of splitting the sample into two half-samples lead to another replicate estimate. The variance of the replicate estimates provided an estimate of the variance of the statistic.

Caution

The estimated variance for the private Chapter 1 elementary school stratum and the public Chapter 1 secondary school stratum are higher than normally expected from a simple random sample. In other words, data on these schools appear to be less reliable than the sample sizes intuitively indicate. Design effect factors for these strata were particularly large, which probably reflects the wide distribution in the amount of private and secondary school services students receive across districts. In other words, while many school districts provide little or no Chapter 1 services to students in private schools, a few districts serve large numbers of private school students. The same is true for services to secondary school students. This strong clustering effect leads to much lower reliability. A list of the standard errors for all estimates referred to in this report is presented at the end of this appendix.

Estimating the Variance of a Sample Median

Variances for sample medians were computed using Woodruffs'[1] method. The formula is as follows: let x_m be the sample median of the variable x for some group A. Define r_L=proportion of group A with a value of x less than or equal to x_m and r_U=proportion of group A with a value of x greater than or equal to x_m. Using the modified BRR, the standard errors s_L and s_U of r_L and r_U were estimated. They were then averaged to get $s=(s_L + s_U)/2$. Let $q_L=.5-s$ and $q_U=.5+s$. By interpolation, x_L and x_U were found such that:

$P(x < x_L) = q_L$ or smaller,

$P(x > x_L) = 1 - q_L$ or smaller,

$P(x < x_U) = q_U$ or smaller, and

$P(x > x_U) = 1 - q_U$ or smaller.

The estimated standard error of x_m is then $(x_U - x_L)/2$.

Since Woodruff's method assumes that the variable being examined is continuous, or nearly so, the theoretical basis is undermined in those cases where there are ties in the distribution (i.e., multiple occurrence of the same value).

Methods Used for the National Survey of School Districts Receiving ECIA Chapter 1

Sampling Error Calculation

Standard errors for proportions estimated for the population from the district survey were calculated using the following formula:

Standard error = Sqrt([p(1-p)/n) * D

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[1] R.S. Woodruff, "Confidence Internals for Medians and Other Position Measures," Journal of the American Statistical Association, 47 (1952), 635-646.

The components of the formula are defined as follows:

p = the proportion for which the standard error is being calculated

D = design effect factor

n = sample group size.

An extensive examination of design effect factors was conducted for survey estimates of proportions. That is, variance estimates for proportions that took into account the complex sample design using a modified BRR approach were compared with those derived under the assumption of simple random sampling. Average design effect factors were obtainable for the three population grouping schemes used to estimate proportions. For estimated proportions presented for the overall population, the design effect factor (D) is 2.3. For estimated proportions presented within the six different size categories the factor is 1.2. Thirdly, the design effect factor is 4.0 for estimated proportions presented within the four poverty level categories.

Standard errors for means were calculated using the formula below:

Standard error = $S_{\bar{x}} * D$

$S_{\bar{x}}$ = the simple random sample estimate of the standard error using unweighted data

D = the design effect factor.

A design effect factor of .3 is appropriate for estimates of means which are closely related to the major stratification classification by district enrollment size. When the value for the mean of a characteristic bears little or no relationship to district enrollment size, the design effect factor will, predictably be greater than 1. A conservative average factor for use in such infrequent cases is 2.7.

Calculation of Significance Tests

Since the statistical significance of a difference between proportions and between means is not always evident based on inspection of confidence intervals, tests were conducted throughout the report to assess statistical significance. For tests of differences of proportions, the standard normal distribution was used, while the t-distribution was employed for tests of differences of means. A .05 level of significance was used to make determinations of statistical significance. The null hypothesis tested in the comparisons of estimates was that there was no difference. To reject this hypothesis using the .05 criterion (and thus assert that there is a significant difference between estimates) implies that there are fewer than 5 chances in 100 that a difference as large or larger than the one observed could have happened by chance alone. Differences in means, medians, and proportions described in the text have been assessed to be statistically significant unless otherwise noted.

SUPPORT TABLES FOR FIGURES AND TABLES PRESENTED IN CHAPTER TWO

SUPPORT TABLE FOR FIGURE 2.1

Distribution of Chapter 1 Public School Students in Relation
to All Students c/, by District Poverty Quartile, 1984-85

District Poverty Level	Number of Chapter 1 Public School Studentsa/	Standard Error	Percent of Chapter 1 Public School Students	Standard Error	Number of Public School Studentsa/	Standard Error	Percent of All Public School Students	Standard Error
Lowest **(0-7.2 percent poor)**	483,930	21,388	9	0.4	8,449,500	273,905	23	0.7
Second Lowest **(7.3-12.4 percent poor)**	803,974	30,907	17	0.6	9,004,550	261,832	24	0.7
Second Highest **(12.5-20.9 percent poor)**	1,363,870	38,883	29	0.7	10,511,700	254,840	28	0.7
Highest **(21-100 percent poor)**	2,102,930	70,013	45	1.3	9,175,530	265,618	25	0.7
Total	4,709,704	71,186	100%		37,141,280	268,516	100%	

N = 2145 (sample of Chapter 1 districts). Table values are based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86, with poverty measure from the 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

a/ Sums are slight underestimates due to missing data and limiting student weighting factors to 2 decimal places.

b/ Numbers are only for districts receiving Chapter 1.

c/ "All students" refers to all students residing in Chapter 1 districts. The 10 percent of districts that do not receive Chapter 1 funds are predominantly very small districts.

SUPPORT TABLE FOR FIGURE 2.2

Distribution of Chapter 1 Public School Students in Relation to All Students c/, by District Urban Status and by District Enrollment, 1984-85

District Characteristics	Number of Chapter 1 Public School Students a/	Standard Error	Percent of Chapter 1 Public School Students	Standard Error	Number of Public School Students a/	Standard Error	Percent of All Public School Students c/	Standard Error
District Urban Status								
Rural	1,574,640	52,918	33	1.0	11,885,900	295,260	32	0.7
Suburban	1,397,430	40,218	30	0.7	15,521,100	300,606	42	0.8
Urban	1,744,770	49,681	37	0.9	9,809,160	191,405	26	0.5
Total	4,716,840	71,136	100%		37,216,160	268,516	100%	
District Enrollment								
1,000	373,391	20,202	7	0.4	2,989,340	113,258	8	0.3
1,000 - 4,999	1,362,600	42,950	29	0.8	11,911,100	167,405	32	0.4
5,000 - 9,999	713,483	25,551	15	0.7	6,189,580	47,551	17	0.1
10,000 - 24,999	676,370	d/	14	d/	6,177,800	d/	17	d/
25,000 +	1,590,990	d/	34	d/	9,948,400	d/	27	d/

N = 2145 (sample of Chapter 1 districts). Table values are based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

a/ Sums are slight underestimates due to missing data and limiting student weighting factors to 2 decimal places. However, sums are slightly higher than those reported in Table 2.1 because there were fewer missing values for districts urbanicity and district enrollment than there were for district poverty level.

b/ Numbers are only for districts receiving Chapter 1.

c/ "All students" refers to all students residing in Chapter 1 districts. The 10 percent of districts that do not receive Chapter 1 funds are predominantly very small districts.

d/ The two largest size categories are derived from certainty samples and thus sampling errors for estimates were not calculated.

SUPPORT TABLE FOR FIGURE 2.3

Presence of Chapter 1 Services in Public Elementary Schools, by School Poverty Quartile[a], 1985-86

	Percent Receiving Chapter 1 Services				
School Poverty Quartile[a]	Yes	Standard Error	No	Standard Error	Total
Lowest (0-15 percent poor)	57	6.4	43	6.4	100%
Second Lowest (15.1-30 percent poor)	76	4.9	24	4.8	100%
Second Highest (30.1-50 percent poor)	86	4.2	14	4.2	100%
Highest (50.1-100 percent poor)	87	3.3	13	3.3	100%

N = 197 (sample of public elementary schools in the highest poverty quartile), 160 (public elementary schools in the second highest poverty quartile), 147 (public elementary schools in the second lowest poverty quartile), 168 (public elementary schools in the lowest poverty quartile). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced priced lunches during the 1985-86 school year.

SUPPORT TABLE FOR FIGURE 2.4

Racial and Ethnic Characteristics of Chapter 1 Students Compared to the Total School-Age Population, 1984-85

Racial and Ethnic Characteristics	Percent of School-age Population (age 5-18) 1984	Number of Chapter 1 Students 1984-85[a]	Percent of Chapter 1 Students 1984-85[a]
White, not Hispanic	72	2,016,860	45
Black, not Hispanic	15	1,289,921	29
Hispanic	8	1,008,292	22
Other	5	196,829	5
Total	100%	4,511,902	100%

Source: School-age population figures are based on racial and ethnic data for school-age children from the March 1984 U.S. Current Population Survey data reported in the National Assessment's first interim report (Kennedy, Jung, & Orland, 1986, Appendix E, p. 9). Chapter 1 figures are from A Summary of Chapter 1 Participation and Achievement Information for 1984-85, Gutmann & Henderson (1987).

[a] New York and Vermont did not report these data.

SUPPORT TABLE FOR FIGURE 2.5

Location of Chapter 1 Elementary Schools, by School and District Povertya/, 1985-86

	Poverty Level of Chapter 1 Schools							
Location of Schools	Lowest (0 to 15 percent poor)	Standard Error	Second Lowest (15.1 to 30 percent poor)	Standard Error	Second Highest (30.1 to 50 percent poor)	Standard Error	Highest (50.1 to 100 percent poor)	Standard Error
In poor districtsa/ (0-12.4 percent poor)	99	1.3	83	4.7	31	7.9	12	5.8
Not in poor districts (12.5-100 percent poor)	1	1.3	17	4.7	69	7.9	88	5.8
Totalc/	100%		100%		100%		100%	

N = 59 (sample of Chapter 1 elementary schools, in the lowest poverty quartile), 71 (sample of those in the second lowest quartile), 92 (sample of those in the second highest quartile), and 135 (sample of those in the highest poverty quartile). Table values are based on weighted data.

Sources: Survey of Districts and Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. District poverty rates were obtained from 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

b/ Poor districts are those with poverty rates above the national midpoint.

c/ Percents may not sum to 100 due to rounding.

SUPPORT TABLE FOR FIGURE 2.6

Location of Non-Chapter 1 Elementary Schools, by School and District Povertya/, 1985-86

Location of Schools	Poverty Level of Non-Chapter 1 Schools Lowest (0 to 15 percent poor)	Standard Error	Second Lowest (15.1 to 30 percent poor)	Standard Error	Second Highest (30.1 to 50 percent poor)	Standard Error	Highest (50.1 to 100 percent poor)	Standard Error
In poor districtsa/ (0-12.4 percent poor)	84	5.4	56	12.8	30	11.3	10	6.7
Not in poor districts (12.5-100 percent poor)	16	5.4	44	12.8	70	11.3	90	6.7
Total	100%		100%		100%		100%	

N = 109 (sample of non-Chapter 1 elementary schools, in the lowest poverty quartile), 76 (sample of those in the second lowest quartile), 68 (sample of those in the second highest quartile), and 62 (sample of those in the highest poverty quartile). Table values are based on weighted data.

Sources: Survey of Districts and Survey of schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ School poverty classification are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. District poverty rates were obtained from 1980 STF3F Census mapping of school district boundaries, which used the Orshansky index of poverty.

b/ Poor districts are those with poverty rates above the national midpoint.

SUPPORT TABLE FOR TABLE 2.1

Distribution of Chapter 1 Schools, Students and Students in Them[a] by School Poverty Quartile,[b] 1985-86

School Poverty Quartile	Percent of Chapter 1 Elementary Schools	Standard Error	Percent of Chapter 1 Elementary Students[b]	Standard Error	Percent of All Students in Chapter 1 Elementary Schools	Standard Error
Lowest (0-15 percent poor)	20	3.4	12	2.8	19	3.6
Second Lowest (15.1-30 percent poor)	24	2.1	17	2.5	22	2.1
Second Highest (30.1-50 percent poor)	31	4.4	29	3.2	29	3.1
Highest (50.1-100 percent poor)	25	4.6	43	4.6	30	4.1
	100%		100%		100%	

N = 357 (sample of public Chapter 1 elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ This table refers to students in public schools.

b/ School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. Numbers are for public schools only.

c/ Percentages may not sum to 100 due to rounding.

SUPPORT TABLE FOR TABLE 2.2

Options Used by Chapter 1 Districts for Selecting Schools a/ to Receive Chapter 1 Services, 1985-86

Options Used to Select Schools b/	Percent of All Districts	S.E.	Percent of Districts That Must Make School Selection Decisions	S.E.	Percent of all Chapter 1 Students in Districts Using Option	S.E. c/
Group schools according to grade spans and designate grade spans to be sewed	22	4.5	48	3.0	47	5.0
Select schools with uniformly high concentrations of children from low-income families	21	2.5	45	3.0	22	1.0
Select a school in an otherwise ineligible school attendance area if the school enrolls a percentage of low-income students similar to that of eligible school attendance area (i.e., attendance vs. residence)	12	2.0	26	2.6	32	1.7
Select schools with 25 percent or more children from low-income families (i.e., the "25 percent rule")	10	1.8	22	2.5	32	4.5
Continue to serve a school no longer eligible if it was eligible in either of 2 preceding years (i.e., "grandfathering")	6	1.4	13	2.0	34	7.2
Skip a higher ranked school and serve a lower one if it has a greater degree of educational deprivation (i.e., "achievement vs. poverty")	4	1.2	8	2.0	7	1.1
Skip eligible schools if comparable services are being received from non-Federal sources (i.e., "skipping schools")	3	1.0	6	1.6	9	1.0

N = 1009 (sample of school districts). Table values are based on weighted data.

Source: Survey of District conducted for the Chapter 1 National Assessment, 1985-86.

a/ Respondents were asked about options used to select school attendance areas, which are defined as the geographical area in which the children who are normally served by a particular school reside.

b/ Categories are not mutually exclusive.

c/ Standard error.

SUPPORT TABLE FOR TABLE 2.3

District Use of Teacher Judgment to Determine Student Eligibility or to Select Chapter 1 Students, 1985-86

	Percent of Chapter 1 Districts[a]	Standard Error
Use of Teacher Judgment	90.7	1.4
Reasons:		
To nominate students for testing that will determine their eligibility for Chapter 1 services	49.5	2.2
To decide that a student below a cutoff score will not receive Chapter 1 services	47.2	2.3
To decide that a student above a cutoff score will receive Chapter 1 services	43.8	2.3
For mid-year transfers, special referrals, and other special circumstances	58.5	2.3

N = 1115 (sample of school districts). Table values are based on weighted data.

Source: Survey of Districts conducted for the Chapter 1 National Assessment, 1985-86.

[a] Categories are not mutually exclusive.

SUPPORT TABLES FOR FIGURES AND TABLES PRESENTED IN CHAPTER THREE

SUPPORT TABLE FOR FIGURE 3.1

Percent of Public Schools Offering Chapter 1 Services by Grade and Percent of Public School Students Participating in Chapter 1, by Grade

Grade	Percent of Public Schools Offering Chapter 1	Standard Error	Percent of Public School Students Participating in Chapter 1[a]
Kindergarten	27	3.3	10
1	82	4.2	19
2	97	1.3	20
3	94	2.0	20
4	94	1.8	20
5	87	3.5	18
6	83	4.0	16
7	68	7.4	11
8	67	8.9	10
9	62	8.9	7
10	49	8.4	4
11	27	4.1	3
12	25	4.4	2

N = 688 (sample of public elementary schools), 229 (sample of public middle/secondary schools). Table values are based on weighted data.

Sources: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86, A Summary of Chapter 1 Participation and Achievement Information for 1984-85, Gutmann & Henderson (1987), and the Digest of Education Statistics, 1987.

[a] Standard errors not provided since percentages are based on population rather than sample data.

[b] School level data are for the 1985-86 school year; participant data are for the 1984-85 school year. Nineteen percent of schools offer Chapter 1 to pre-kindergarten students.

SUPPORT TABLE FOR FIGURE 3.2

Subjects and Combinations of Subjects Offered as Part of Chapter 1 Services in Public Schools, as Reported by School Principals, 1985-86

Subjects and Combinations of Subjects	Percent of Public Chapter 1 Elementary Schools[a]	Standard Error	Percent of Public Chapter 1 Middle/ Secondary Schools[a]	Standard Error
Subjects Offered				
Reading	97	1.2	85	3.6
Mathematics	63	4.4	62	4.3
Language arts	32	3.5	44	7.0
English as a Second Language (ESL)	13	2.7	8	3.7
Combinations of Subjects[b]				
Reading only	27	2.9	18	4.4
Mathematics only	2	0.9	12	3.4
2-3 subjects	63	4.4	62	5.9
All 4 subjects	8	2.4	7	3.6

N = 354 (sample of public Chapter 1 elementary schools), 160 (sample of public Chapter 1 middle/secondary schools). Table values based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] Categories are not mutually exclusive.

[b] Fewer than one percent of public elementary or secondary schools offer only language arts or only ESL.

SUPPORT TABLE FOR FIGURE 3.3

Settings in Which Chapter 1 Reading and Mathematics are Provided by Public Schools, as Reported by School Principals, 1985-86

Type of Setting[a/]	Percent of Public Chapter 1 Elementary Schools	Standard Error	Percent of Public Chapter 1 Middle/ Secondary Schools	Standard Error
Reading				
Inclass	28	2.6	30	4.4
Limited pullout	84	2.1	51	5.9
Extended pullout	12	2.7	21	4.5
Replacement	3	1.3	16	5.6
Before/after school	2	0.8	2	1.3
Summer school	10	2.7	5	2.6
Schoolwide	5	1.3	4	2.2
Mathematics				
Inclass	36	3.9	33	5.0
Limited pullout	76	2.0	48	6.1
Extended pullout	14	3.0	26	6.0
Replacement	4	1.8	17	4.6
Before/after school	2	1.0	4	2.6
Summer school	10	2.9	6	2.6
Schoolwide	6	1.3	7	2.5

N = 343 (sample of public Chapter 1 elementary schools that offer Chapter 1 reading), 224 (sample of those that offer Chapter 1 mathematics). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a/] Categories are not mutually exclusive.

SUPPORT TABLE FOR FIGURE 3.4

Activities Missed When Public Elementary Students Receive Chapter 1 Reading and Mathematics Services, as Reported by Classroom Teachers, 1985-86

Activities Missed During Chapter 1 Reading and Mathematics	Percent of Classroom Teachers	Standard Error
Reading		
Other activities in the same subject	57	4.6
Other basic skills	17	2.4
Something else	22	3.4
Varies	2	0.8
Don't know	1	0.6
Not ascertained	1	0.6
	100%	
Mathematics		
Other activities in the same subject	36	3.2
Other basic skills	22	3.2
Something else	39	4.1
Varies	0	0.2
Not ascertained	3	1.0
	100%	

N = 363 (sample of regular classroom teachers in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

SUPPORT TABLE FOR FIGURE 3.5

Educational Attainment of Chapter 1 and Regular Teachers in Public Elementary Schools, 1985-86

Instructor Level of Education	Percent of Chapter 1 Teachers	Standard Error	Percent of Regular Teachers	Standard Error
Teachers				
Level of Schooling:				
Doctoral degree	1	0.3	0.1	0.1
Beyond masters degree	14	2.6	14	2.0
Masters degree	36	2.8	31	3.9
Beyond bachelors degree (but not Masters)	29	2.5	35	3.7
Bachelors degree	21	3.3	20	1.9
	100%[a/]		100%[a/]	

N = 621 (sample of Chapter 1 teachers in public elementary schools), 363 (sample of regular teachers in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ Percents may not sum to 100 due to rounding.

SUPPORT TABLE FOR FIGURE 3.6

Staffing Patterns that "Best Describe" Chapter 1 Instructional Services in Public Schools, as Reported by School Principals, 1985-86

Staffing Patterns	Percent of Public Chapter 1 Elementary Schools[a]	Standard Error	Percent of Public Chapter 1 Middle/ Secondary Schools[a]	Standard Error
Reading				
Chapter 1 teacher with aide	41	4.6	40	7.3
Chapter 1 teacher with no aide	37	5.5	48	9.5
Regular teacher with Chapter 1 aide	16	3.2	11	4.7
Chapter 1 aide with no teacher	6	2.3	1	1.2
	100%		100%	
Mathematics				
Chapter 1 teacher with aide	38	5.1	21	7.5
Chapter 1 teacher with no aide	32	4.8	57	9.8
Regular teacher with Chapter 1 aide	19	4.1	19	6.0
Chapter 1 aide with no teacher	9	3.5	2	1.8
	100%		100%	

N = 343 (sample of public Chapter 1 elementary schols that offer Chapter 1 reading), 224 (sample of those that offer Chapter 1 mathematics), 136 (sample of public Chapter 1 middle/secondary schools that offer Chapter 1 reading), 100 (sample of those that offer Chapter 1 mathematics). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] Percents may not sum to 100 due to a small number of respondents not answering the question.

SUPPORT TABLE FOR FIGURE 3.7

Student Behavior[a] in Public Chapter 1 Elementary Schools, by School Poverty[b] as Reported by Principals, 1985-86

	Percent[c] of Schools in:							
	Poverty Quartile							
Student Behavior	Low (0-15% poor)	S.E.[d]	Second Lowest (15.1-30% poor)	S.E.	Second Highest (30.1-50% poor)	S.E.	High (50.1-100% poor)	S.E.
Vandalism or theft of school property	17	6.8	22	5.0	19	3.1	36	6.3
Truancy/chronic tardiness	30	10.6	47	6.4	37	4.9	57	4.9
Talking back to staff	18	3.5	37	7.6	36	5.5	42	6.7
Physical fights among students	40	5.2	44	5.6	51	5.5	63	7.8

N = 59 (sample of Chapter 1 elementary schools in the lowest poverty quartile), 71 (sample of those in the second lowest quartile), 92 (sample of those in the second highest quartile), and 135 (sample of those in the highest poverty quartile). Table are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ Student behavior was defined as "a problem" if the principal reported it was either "a serious problem" or "somewhat of a problem." The other response category was "not at all a problem."

b/ School poverty classifications are based on principals reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty categories were derived by dividing the school survey population into quartiles.

c/ Percents may not sum to 100 due to rounding and/or due to the fact that a small percentage of respondents did not answer the question.

d/ Standard Error.

SUPPORT FOR FIGURE 3.8

School-Related Activities in Which Parents are "Very Involved"[a] in Public Chapter 1 Elementary Schools, by School Poverty[b] as Reported by Principals

	Percent of Schools in:							
	Poverty Quartile							
Activities in Which Parents are "Very Involved"	Low (0-15% poor)	S.E.[c]	Second Lowest (15.1-30% poor)	S.E.	Second Highest (30.1-50% poor)	S.E.	High (50.1-100% poor)	S.E.
PTA Meetings	37	10.7	18	4.1	18	2.6	19	3.5
Parent Advisory Organization Meeting	39	8.9	12	3.3	10	5.1	20	5.0
Advising on Design of Special Programs	15	4.9	7	3.6	2	1.6	7	2.4
Fund-Raising and Other Support Activities	80	4.3	50	8.2	37	4.2	37	4.1

N = 59 (sample of Chapter 1 elementary schools in the lowest poverty quartile), 71 (sample of those in the second lowest quartile), 92 (sample of those in the second highest quartile), and 135 (sample of those in the highest poverty quartile). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] Other response categories were "somewhat involved," "not involved," and "activity not offered."

[b] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty rate categories were derived by dividing the school survey population into quartiles.

[c] Standard Error.

SUPPORT TABLE FOR FIGURE 3.9

Education-Related Activities in Which Parents are "Very Involved"[a] in Public Chapter 1 Elementary Schools, by School Poverty[b] as Reported by Principals 1985-86

	Percent of Schools in:							
	Poverty Quartile							
Activities in Which Parents are "Very Involved"	Low (0-15% poor)	S.E.[c]	Second Lowest (15.1-30% poor)	S.E.	Second Highest (30.1-50% poor)	S.E.	High (50.1-100% poor)	S.E.
Classroom Volunteers	24	6.5	12	4.9	11	3.7	14	4.3
Volunteers outside classroom	21	8.4	13	4.3	13	3.1	17	3.9
Informal Parent-Teacher Contacts	45	9.1	37	6.3	27	4.7	21	5.3
Helping Students with Homework	20	2.8	19	5.0	14	3.8	4	2.3

N = 59 (sample of Chapter 1 elementary schools in the lowest poverty quartile), 71 (sample of those in the second lowest quartile), 92 (sample of those in the second highest quartile), and 135 (sample of those in the highest poverty quartile). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

a/ Other response categories were "somewhat involved," "not involved," and "activity not offered."

b/ School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches during the 1985-86 school year. School poverty rate categories were derived by dividing the school survey population into quartiles.

c/ Standard Error.

SUPPORT TABLE FOR FIGURE 3.10

Time Devoted to Chapter 1 and Regular Reading Instruction, by School Poverty[a], 1985-86

Median Minutes of Instruction	Percent of Schools in: Poverty Quartile: Low (0-15% poor)	S.E.[b]	Second Lowest (15.1-30% poor)	S.E.	Second Highest (30.1-50% poor)	S.E.	High (50.1-100% poor)	S.E.
Regular Reading	80	3.3	60	5.8	60	1.3	60	0.5
Chapter 1 Reading	32	3.3	30	0.5	30	1.8	45	0.8

N = 132 (sample of regular teachers in public elementary schools in the lowest poverty quartile), 113 (sample of those in the second lowest quartile), 130 (sample of those in the second highest quartile), and 170 (sample of those in the highest poverty quartile). 174 (sample of Chapter 1 teachers in public elementary schools in the lowest poverty quartile), 61 (sample of those in the second lowest quartile), 77 (sample of those in the second highest quartile), and 105 (sample of those in the highest poverty quartile). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] School poverty classifications are based on principals' reports of the percent of students who were eligible for free or reduced price lunches durings the 1985-86 school year. School poverty rate categories were derived by dividing the school survey population into quartiles.

[b] Standard Error.

SUPPORT TABLE FOR FIGURE 3.11

Location[a] of Services to Private School Chapter 1 Participants, 1984-85 and 1986-87

	Percent of Chapter 1 Participants			
Location	1984-85	Standard Error	1986-87	Standard Error
Inside Own Private School	90	1.1	19	1.6
Inside a Public School	6	1.0	22	1.6
Mobile Van	2	0.2	29	1.8
Other Location	2	0.2	30	1.8

Source: Private School Student Participation Survey conducted for the Chapter 1 National Assessment, 1985-86.

[a] For the 1984-85 and 1986-87 school years, respondents estimated the percent of nonpublic school students served by their Chapter 1 program who received(d) instructional services at each location. For the 1986-87 school year, respondents reported the service locations used on November 1, 1986.

SUPPORT TABLE FOR TABLE 3.2

Instructional Time and Group Size for Chapter 1 Reading and Mathematics in Public Schools, as Reported by Chapter 1 Teachers, 1985-86

Instructional Time and Group Size by Subject	Chapter 1 Instruction in Public Elementary Schools			Chapter 1 Instruction in Public Middle/Secondary Schools		
	Median	Standard Error	Inter-quartile Range[a]	Median	Standard Error	Inter-quartile Range[a]
Reading						
Size of instructional group	5	0.4	3 to 7	4	0.2	3 to 6
Days per week	5	0.0[b]	5 to 5	5	0.0[b]	5 to 5
Minutes per day	35	5.0	30 to 50	45	0.3	40 to 50
Mathematics						
Size of instructional group	5	0.6	3 to 8	3	0.6	2 to 8
Days per week	5	0.0[b]	4 to 5	5	0.0[b]	4 to 5
Mintues per day	30	2.5	30 to 50	45	2.0	40 to 55

N = 934 (sample of Chapter 1 teachers in public schools). Table values are based on weighted data.

Source: Survey of Schools conducted for Chapter 1 National Assessment, 1985-86.

[a] Figures are the values at the first and third quartiles and represent the amount of variation around the median. For example, the interquartile values of 30 to 50 minutes per day of reading mean that approximately half of all public elementary schools have Chapter 1 reading for an amount of time in between these values.

[b] A standard error of zero shows that there is no variability in estimates of the median in replicate samples.

SUPPORT TABLE FOR TABLE 3.5

Tasks Performed by Chapter 1 Aides in Public Schools, 1985-86

Tasks of Chapter 1 Aide	Percent of Chapter 1 Teachers/ Aides in Elementary Schools[a]	S.E.[b]	Percent of Chapter 1 Teachers/ Aides in Middle/ Secondary Schools[a]	S.E.	Percent of Regular Teachers in Elementary Schools[c]	S.E.
Assist students with classroom work assigned by a teacher	93	1.6	97	1.7	96	2.9
Give feedback to students about their work	93	2.1	88	5.5	86	5.2
Correct students' work	82	5.7	94	2.5	76	6.4
Assist teacher in non-instructional tasks	71	6.2	80	7.9	53	7.6
Provide instruction independently of teacher	44	3.8	45	3.9	53	7.6
Assign class work to students	34	2.5	27	7.9	31	7.0

N = 621 (sample of Chapter 1 teachers/aides in public elementary schools), 313 (sample of those in public middle/secondary schools), 72 (sample of regular teachers in public elementary schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

[a] Results are based on the responses of Chapter 1 teachers or Chapter 1 aides working in the absence of a Chapter 1 teacher.

[b] Standard Error.

[c] Results are based on the responses of regular teachers who work with Chapter 1 aides in their classrooms.

SUPPORT TABLE FOR TABLE 3.6

Coordination-Related Activities of Chapter 1 and Regular Teachers in Public Chapter 1 Elementary Schools, 1985-86

	Percent of Teachers			
Activities Related to Coordination	Chapter 1	Standard Error	Regular	Standard Error
Joint staff meetings to discuss Chapter 1 students' instructional needs	91	2.5	88	2.4
Use information from other teachers to evaluate students' progress	89	2.0	93	1.8
Joint development of written lesson plans	59	4.2	53	3.2

N = 934 (sample of Chapter 1 teachers in public schools), 361 (sample of regular teachers in public Chapter 1 schools). Table values are based on weighted data.

Source: Survey of Schools conducted for the Chapter 1 National Assessment, 1985-86.

SUPPORT TABLE FOR TABLE 3.8

Number of Chapter 1 Students Attending of Private Schools, by Selected Characteristics of School District, 1984-85 and 1986-87[a]

District Characteristic	1984-85	Standard Error	1986-87	Standard Error	Percent Change
Total	180,670	5,396	130,617	4,611	-28
District Size					
Less than 2,500	21,014	3,486	17,095	3,123	-19
2,500 - 9,999	42,573	2,967	29,281	2,248	-31
10,000 or more	117,083	2,690	84,241	2,278	-28
Region					
North Atlantic	86,820	4,913	54,112	4,139	-38
Great Lakes and Plains	35,226	1,665	28,937	1,441	-18
Southeast	18,809	2,837	11,036	2,556	-41
West and Southwest	39,845	1,606	36,533	1,410	-8

Source: Private School Student Participation Survey Conducted for the Chapter 1 National Assessment, 1985-86.

a/ For the 1984-85 and 1986-87 school years unduplicated counts of the public and nonpublic school students served by Chapter 1 are reported. For the 1986-87 school year, the number of students served on November 1, 1986 is presented. Students are counted only once if they receive(d) Chapter 1 services in more than one subject. Data exclude private school participants in Missouri and Virginia where bypass provisions operate.

SUPPORT TABLES FOR FIGURES AND TABLES PRESENTED IN CHAPTER FOUR

SUPPORT TABLE FOR FIGURE 4.1

Percent of Districts that Calculate Comparability Under Chapter 1, by District Enrollment, 1985-86

	District Coordinators Under Chapter 1[b]	
District Enrollment[a]	Percent	Standard Error
All Districts	75	2.6
2,500 - 4,999	73	3.3
5,000 - 9,999	74	2.8
10,000 - 24,999	82	c/
25,000 or more	87	c/

N = 398 (sample of districts). Table values are based on weighted data.

Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86.

a/ Due to sample size limitations, data are reported only for districts enrolling 2,500 pupils or more.

b/ Data are reported only for school districts with both Chapter 1 and non-Chapter 1 attendance areas.

c/ The two largest size categories are derived from certainty samples and thus sampling errors for estimates were not calculated.

SUPPORT TABLE FOR FIGURE 4.2

Percent of Districts Retaining Chapter 1 District Advisory Councils (DACs) by District Enrollment,[a] 1985-86

District Enrollment	Percent of Districts[b]	Standard Error
All Districts[a]	44	3.0
< 1,000	43	3.8
1,000 - 2,499	41	4.5
2,500 - 4,999	45	3.7
5,000 - 9,999	52	3.2
10,000 - 24,999	58	b/
25,000 or more	73	b/

N = 1244 (sample of districts). Table values are based on weighted data.

Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86.

a/ Includes districts in all 50 States. Forty-five States eliminated formal DAC requirements.

b/ The two largest size categories are derived from certainty samples and thus sampling errors for estimates were not calculated.

SUPPORT TABLE FOR FIGURE 4.3

Changes in Parent Involvement Under Title I and Chapter 1, as Reported by District Chapter 1 Coordinators, 1985-86

Type of Involvement	No Change	Standard Error	More Under Title I	Standard Error	More Under Chapter 1	Standard Error	Don't Know	Standard Error	Not Answered	Standard Error	Total
Involvement in program design	61	3.0	24	2.6	6	1.4	5	1.3	4	1.2	100%
Involvement in program operations (includes assisting with instruction at school and/or at home)	71	2.8	15	2.2	6	1.4	6	1.4	2	0.9	100%
Involvement in evaluations	70	2.8	15	2.2	8	1.7	5	1.3	2	0.9	100%

N = 1274 (sample of districts). Table values are based on weighted data.

Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86.

SUPPORT TABLE FOR TABLE 4.4

Changes in Number of District Staff Performing Selected Functions[a] Under Title I and Chapter 1

	Number of Positions (in full-time equivalents (FTEs))			
Function	Title I (1981-82)	Standard Error	Chapter 1 (1985-86)	Standard Error
Coordinator	3,863	88.5	3,625	129.6
Parent specialist	703	82.9	349	23.6
Evaluation specialist	552	50.8	363	38.0
Curriculum specialist	1,807	109.7	1,422	141.0
Fiscal specialist	317	43.9	516	103.2
Total	7,242		6,275	

N = 1,655 (sample of districts under Title I), 1,866 (sample of those under Chapter 1). Table values are based on weighted data.

Sources: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology, Inc., 1983).

a/ Functions listed do not include all Chapter 1-related staff in school districts because of difficulties in obtaining comparable data for all functions for both Title I and Chapter 1. Therefore, the total number of staff shown here includes only those staff performing functions listed in this table.

SUPPORT TABLE FOR TABLE 4.5

Perceptions of SEA Helpfulness in Selected Program Areas Under Title I and Chapter 1, as Reported by District Coordinators[a]

	Percent of District Coordinators Under:			
	Title I (1980-81)	Standard Error	Chapter 1 (1984-85)	Standard Error
SEA was helpful in any aspect of the program	67	2.7	58	3.0
SEA helpful in:				
Application preparation	48	2.5	36	2.9
Evaluation	46	2.6	30	2.8
Parent involvement	32	2.8	13	2.0
Program management and budgeting	32	2.8	22	2.5
Needs assessment	31	2.8	24	2.6
Selection of students	28	2.8	17	2.3
Improvement of instructional quality	25	2.7	25	2.6
Supplement, not supplant	19	2.5	13	2.0
Comparability	16	2.1	12	2.0
Coordination with other programs	15	2.2	12	2.0
Selection of schools	15	2.1	10	1.8

N = 436 (sample of districts under Title I), 1,609 (sample of those under Chapter 1). Table values are based on weighted data.

Sources: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology, Inc., 1983).

[a] District coordinators were asked about their perceptions for the previous year.

SUPPORT TABLE FOR TABLE 4.6

Mean Ranking of Burden Associated with Selected Requirements of the Legal Framework Under Title I and Chapter 1, as Reported by District Coordinators, 1985-86

	Mean Ranking of Burden Reported by District Coordinators			
Requirement	Title I (1981-82)	Standard Error	Chapter 1 (1985-86)	Standard Error
Parent involvement	3.4	0.06	3.8	0.08
Evaluation	3.6	0.05	3.1	0.06
Comparability	4.4	0.07	4.9	0.09
Selection of students	4.4	0.07	3.9	0.08
Supplement, no supplant	4.8	0.05	4.9	0.07
Maintenance of effort	4.8	0.06	5.1	0.06
Selection of schools	5.2	0.06	5.0	0.08
Size, scope, and quality	5.4	0.05	5.3	0.07

N = 1,769 (sample of districts under Title I), 2,145 (sample of those under Chapter 1). Table values are based on weighted data.

Source: District Survey conducted for the Chapter 1 National Assessment, 1985-86, and the District Practices Study (Advanced Technology, Inc., 1983).

Standard Errors for Text Citations

The following are standard errors for text citations that do not appear in tables in the report.

Page	Descriptor	Estimate	Standard Error
Chapter 2			
16	Percentage of public schools that provide Chapter 1 services	59.4%	1.9
16	Percentage of public elementary schools that provide Chapter 1 services	75.4%	2.4
16	Percentage of public middle/secondary schools that provide Chapter 1 services	36.3%	3.7
18	Median rate of poverty in Chapter 1 public elementary schools	35.0%	2.0
18	Median rate of poverty in non-Chapter 1 public elementary schools	17.0%	2.0
18	Of elementary schools with average achievement scores in the lowest quarter, the percentage that provide Chapter 1 services	83.0%	4.3
18	Of elementary schools in which students from racial/ethnic minority groups constitute the majority, the percentage that provide Chapter 1 services	78.0%	5.6
21	Percentage of non-Chapter 1 elementary schools with poverty rates of 60 percent or higher	10.0%	2.7
21	Percentage of Chapter 1 elementary schools with poverty rates of 9 percent or less	9.7%	2.9
30	Median rate of poverty in public elementary schools (national midpoint)	30.0%	3.0
33	Percentage of districts that need not make school selection decisions	54.0%	3.0
33	Percentage of districts that have only one school, or have only one school at the grade(s) they have chosen to serve	47.9%	3.0

(continued)

Page	Descriptor	Estimate	Standard Error
33	Percentage of districts in 1985-86 school year that used the below 1000 enrollment option	6.1%	1.5
33	Percentage of all Chapter 1 students in districts that did not make school selection decisions	9.0%	3.0
33	Percentage of all Chapter 1 districts that must make school selection decisions	46.0%	3.0
33	Percentage of all Chapter 1 students in districts that must make school selection decisions	89.3%	1.7
36	Of districts under Title I with the lowest poverty and that made school selection decisions, the percentage that used the no wide variance option	25.0%	7.2
36	Of districts under Chapter 1 with the lowest poverty and that made school selection decisions, the percentage that used the uniformly high concentration option	65.0%	9.9
37	Percentage of all public elementary schools with rates of poverty of 25 percent or more	58.7%	3.2
Chapter 3			
69	Median size of class for which regular teachers in public elementary schools are responsible	25	0.2
69	Percentage of regular teachers in public elementary schools who divide their classes into subgroups for reading	89.0%	2.0
69	Median size of reading subgroups formed by regular teachers in public elementary schools	8	0.0[a/]
69	Median class size of Chapter 1 teachers who form subgroups in public elementary schools	10	1.1
69	Percentage of regular teachers in public elementary schools who divide their classes into subgroups for mathematics	50.0%	3.6

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a/ A standard error of zero shows that there is no variability in estimates of the median in the replicate samples.

(continued)

Page	Descriptor	Estimate	Standard Error
71	Median days per week of regular reading instruction in public elementary schools	5	0.0[a/]
71	Median days per week of regular math instruction in public elementary schools	5	0.0[a/]
71	Median minutes per day of Chapter 1 reading instruction in public elementary schools	60	0.0[a/]
71	Median minutes per day of Chapter 1 math instruction in public elementary schools	50	2.0
78	Percentage of Chapter 1 teachers who report holding a specialist certificate in reading	69.0%	5.0
78	Percentage of regular classroom teachers who possess a specialist certificate in reading	28.0%	3.2
80	Of aides who assist Chapter 1 teachers, the percentage who hold no degree or certificate	71.0%	4.6
80	Of aides who assist Chapter 1 teachers, the percentage who have earned a BA degree	6.0%	2.6
80	Of aides who assist regular teachers, the percentage who hold no degree or certificate	65.0%	4.7
80	Of aides who assist regular teachers, the percentage who have earned a BA degree	12.0%	3.4
82	Percentage of Chapter 1 teachers in public elementary schools who report that they decide what skills aides will address	96.7%	1.9
82	Percentage of Chapter 1 teachers in public elementary schools who report that they decide what materials aides will use	92.7%	2.7
82	Percentage of Chapter 1 teachers in public elementary schools who report that they decide the students with whom aides will work	93.2%	2.7
89	Percentage of regular teachers who report that they are responsible for basic skills	83.8%	2.2

[a/] A standard error of zero shows that there is no variability in estimates of the median in the replicate samples.

(continued)

Page	Descriptor	Estimate	Standard Error
89	Percentage of Chapter 1 teachers who agreed that basic skills instruction is the responsibility of the regular teacher	63.6%	3.6
99	Number of Chapter 1 elementary schools that met the poverty criterion of 75 percent in 1985-86	5,206	864
99	Percentage of elementary schools that met the poverty criterion of 75 percent in 1985-86	14.5%	2.4
99	Number of schools with rates of poverty of 75 percent or more that adopted schoolwide projects in 1985-86	834	130
99	Number of Chapter 1 elementary and middle/secondary schools that met the poverty criterion of 75 percent in 1985-86	7,400	1,281
104	Percentage of districts that served private school students in 1984-85	23.1	2.5
104	Percentage of districts that served private school students in 1986-87	21.7	2.3
107	Percentage of districts that reported technological means to deliver Chapter 1 services to private school students in 1984-85	2.6	1.0
107	Percentage of districts that reported technological means to deliver Chapter 1 services to private school students in 1986-87	7.1	1.5
107	Number of private school students served in Chapter 1 via technology in 1984-85	3,139	514
107	Number of private school students served in Chapter 1 via technology in 1986-87	19,546	2,183
109	Percentage of private elementary schools that provided Chapter 1 reading instruction during the 1985-86 school year	76.4%	22.1

(continued)

Page	Descriptor	Estimate	Standard Error
109	Percentage of private elementary schools that provided Chapter 1 math instruction during the 1985-86 school year	71.7%	17.8
109	Percentage of Chapter 1 administrators who reported no difference between public and private school use of pullout settings	80.5%	2.4
109	Percentage of Chapter 1 administrators who reported that private school students were more likely to receive instruction through pullouts	11.7%	2.0
111	Median number of days per week of Chapter 1 reading instruction	5	1.0
111	Median number of days per week of Chapter 1 math instruction	5	0.0[a]
111	Median minutes per day of Chapter 1 reading instruction for private school students	30	8.0
111	Percentage of district officials who reported no difference in weekly instructional time per student when asked to compare Chapter 1 services to private and public school pupils	82.0%	2.3
111	Percentage of district officials who reported no difference in class sizes when asked to compare Chapter 1 services to private and public school pupils	72.1%	2.7
111	Percentage of district officials who indicated that Chapter 1 class sizes were smaller for private school pupils	24.3%	2.6
111	Percentage of district officials who indicated that private school pupils receive less Chapter 1 instructional time per week than their public school counterparts	14.0%	2.1
Chapter 4			
122	Of districts that continue to calculate comparability, the percentage that do so because of State policy	79.1%	3.2

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[a] A standard error of zero shows that there is no variability in estimates of the median in the replicate samples.

(continued)

Page	Descriptor	Estimate	Standard Error
122	Of districts that continue to calculate comparability, the percentage that do so because of local factors	40.8%	3.9
122	Of districts that continue to calculate comparability, the percentage that do so because of fears of a Federal audit exception	21.3%	3.2
122	Of districts that calculate comparability, the percentage that compares both pupil/teacher ratios and staff salaries across Chapter 1 and non-Chapter 1 schools	48.0%	3.0
122	Of districts that calculate comparability, the percentage that only compare pupil/teacher ratios	36.0%	2.9
122	Of districts that calculate comparability, the percentage that only compare staff salaries	10.0%	1.8
122	Of districts that calculate comparability, the percentage that use other measures to compare Chapter 1 and non-Chapter 1 schools	7.0%	2.0
122	Percentage of all Chapter 1 districts enrolling 2,500 or more pupils that reallocated State or local funds in 1985-86	7.0%	2.1
122	Percentage of districts that reallocated State and local resources in the final year of Title I	11.2%	0.5
122	Percentage of districts with 10,000 or more students that reallocated resources in the final year of Title I	15.9%	1.8
122	Percentage of districts with 10,000 or more students that reallocated resources under Chapter 1	7.7%	b/
124	Percentage of districts nationwide with State compensatory education programs	37.0%	1.7
124	Percentage of districts nationwide with local compensatory education programs	15.0%	1.3

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b/ The estimate is derived from a certainty sample and thus a standard error was not calculated.

(continued)

Page	Descriptor	Estimate	Standard Error
125	Percentage of districts with one or both (State or local compensatory education) programs	40.0%	1.8
126	Percentage of all districts that have continued DACs	44.0%	3.0
126	Percentage of districts in which formal SACs exist	38.1%	3.0
131	Percentage of all school districts that use one of the Title I evaluation models	92.1%	4.0
131	Percentage of all school districts under Chapter 1 that submit evaluations as frequently as under Title I	88.9%	4.6
133	Percentage of local coordinators under Chapter 1 who reported State objections to some aspect of their last program application	9.0%	1.7
133	Percentage of local coordinators under Title I who reported State objections to some aspect of their last program application	15.5%	1.0
140	Percentage of Chapter 1 local grants that support salaries for local administrators	4.4%	1.8
141	Percentages of Title I local grants that support salaries for local administrators	4.2%	1.3
141	Number of FTE district administrators	9,943	50.9
146	Percentage of all districts that consider State monitoring reviews to have been more thorough under Title I than they are under Chapter 1	10.0%	1.0
146	Percentage of local Chapter 1 coordinators who reported State monitoring reviews within the previous 18 months	75.0%	2.0
146	Percentage of local Chapter 1 coordinators who reported State monitoring reviews within the previous 3.5 years	92.0%	1.4
148	Percentage of Chapter 1 coordinators who reported having been audited by the State under Chapter 1	84.0%	2.1

(continued)

Page	Descriptor	Estimate	Standard Error
148	Percentage of Title I coordinators who reported having been audited by the State under Title I	66.0%	7.1
148	Percentage of program coordinators who reported that their last audit only covered fiscal matters in 1981-82	25.0%	3.0
148	Percentage of program coordinators who reported that their last audit covered only fiscal matters in 1985-86	15.0%	2.1
148	Percentage of school districts that consider the thoroughness of audits to be about the same under Title I and Chapter 1.	51.0%	2.0
149	Percentage of districts that consider Chapter 1 audits more thorough than those under Title I	38.0%	2.3
149	Percentage of districts that considered Title I audits more thorough than those under Chapter 1	11.0%	1.6
153	Percentage of Chapter 1 administrators who reported that the amount of time spent managing the program has remained about the same as under Title I	51.0%	3.0
153	Percentage of Chapter 1 coordinators in districts enrolling over 25,000 students who reported increases in the amount of time they spent administering Chapter 1 in 1985-86 compared to 1981-82	51.9%	4.7
153	Percentage of Chapter 1 coordinators in districts enrolling fewer than 1,000 students who reported greater administrative time commitments	23.5%	2.7
153	Percentage of Chapter 1 coordinators who reported decreases in administrative time	8.8%	1.7
153	Percentage of Chapter 1 coordinators who reported increases in administrative time	8.1%	1.7
153	Percentage of Chapter 1 administrators who reported little change with respect to comparability	41.0%	3.1
153	Percentage of coordinators who reported less time administering parent involvement	24.0%	2.6

(continued)

Page	Descriptor	Estimate	Standard Error
153	Percentage of coordinators who reported parent involvement activity no longer takes place	12.1%	2.0
153	Percentage of Chapter 1 administrators who reported little change in parent involvement	51.0%	3.1
Chapter 5			
159	Percentage of local program directors with six or more years of job tenure	42.0%	2.5

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